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ANALYSIS OF WIND SPEEDS AT THE
SPACE SHUTTLE LAUNCH SITE,
VANDENBERG AIR FORCE BASE

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3 April 1986

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INTRODUCTION

Wind speeds at the Shuttle Launch Complex may be a factor to be considered in ensuring safe and flawless launch of the shuttle. High wind speeds may lead to unacceptably large horizontal forces at particularly vulnerable times in the launch process. Low wind speeds, on the other hand, will reduce the capability of the atmospheric boundary layer to disperse residual HCl acid vapor from the solid rocket boosters. In the present analysis, we have computed and presented wind-speed distributions for multiple-hr as well as 1-hr averaging periods for guidance in determining the probability that a given wind condition will persist beyond 1 hr.

High wind speeds at tower level tend to arise from strong coupling of the low level flow to high speed flow aloft resulting from large pressure gradients on the synoptic-scale. Under these conditions, the wind direction tends to be more uniform with height than under weak synoptic-scale forcing, and the tower level wind direction, usually can be approximated from the conventional synoptic analysis or forecast maps.

Low wind speeds at the Space Shuttle Launch Site for brief or extended periods could lead to hazards resulting from the acid cloud lingering in the near vicinity of the launch complex. Even though the cloud may attain a stabilized height well above the surface, if it rains out, revolatilized acid vapor could lead to high HCl vapor concentrations in the air surrounding the launch site. Revolatilized HCl vapor concentrations are inversely proportional to wind speed, so extended periods of low wind speeds would result in high acid vapor densities for correspondingly long periods.

Low wind speeds may persist for several hours if the large-scale pressure gradient is weak. Even under moderate horizontal pressure

gradients, there may be 1- to 3-hr periods of low winds because of the location of the sea-breeze convergence zone.

The time of onset of a particular wind-speed regime also may be of interest for determining, well in advance, the optimum time, meteorologically, for avoiding persistent adverse wind conditions. Tables are presented which display the diurnal behavior of persistent wind-speed conditions.

DATA

The data were collected over the period of 10 September 1983 through 19 August 1984. Data collection and quality assurance procedures are described by Schacher and Stanton (1984).

Hourly data from the 300-ft level on meteorological towers 300 and 301 at Vandenberg Air Force Base were analyzed to determine the probability of occurrence of various mean wind speeds for averaging times of 1 to 6 hr. Tower 301 is closest to SLC-6 and, therefore, is most representative of conditions to be experienced at launch. Tower 300 was included in the analysis to provide a picture of the uniformity (or lack thereof) in wind speeds near the coast at South Vandenberg and as a check on any peculiarities that may arise in the analysis of the tower 301 data.

Multiple-hr averages were determined by simply adding successive hourly measurements. If the datum for a particular hour was bad or missing, that hour was skipped and the next hourly value was used; however, if two consecutive hours had bad or missing data, the averaging process was stopped and restarted with the first subsequent occurrence of good data. Therefore, no averaged event contained two or more consecutive hours of bad or missing data.

To examine the diurnal patterns of persistent winds, we have divided the day into 6 4-hr periods (00-04, 04-08, 08-12, 12-16, 16-20, 20-00) and

tabulated the occurrence of single and multiple-hr episodes of various wind-speed averages beginning in each period.

ANALYSIS

Cumulative percentages

Fig. 1 shows a plot of the cumulative percentage of occurrences by month for successive wind-speed thresholds for 1-hr averaged wind data from Tower 301 (see APPENDIX 1 for tables used in these plots). The dominant feature of these curves is the preponderance of low wind speeds centered on August and September, with a secondary peak in December and January. The overall minimum of the curve (i.e., preponderance of high wind speeds) occurs in April and May, with secondary minima in November and February. Fig. 2 shows the same data plotted with cumulative percentage as the parameter, which also clearly show the relatively high wind speeds in April and November.

The data from Tower 300, plotted in Figs. 3 and 4, corroborate the results from Tower 301 on the tendency for low winds in late summer and high winds in November. In the first three months of the year, however, the secondary maxima and minima are reversed between the two towers, with relatively large percentage of low wind speeds in February separated by lower values in January and March at Tower 300 and the opposite occurring at Tower 301. It might be tempting to speculate on a physical cause for this feature, but the relative magnitudes of the differences is perhaps not sufficient evidence to support any particular flow feature. It should be noted that there are less than half as many data for Tower 300 as for 301 for February, so the relatively low winds observed for February at Tower 300 could be a sampling bias.

The speeds observed at Tower 300 are about half those at 301 for median values (50% curve in Figs. 2 and 4). The ratio of speeds at the two

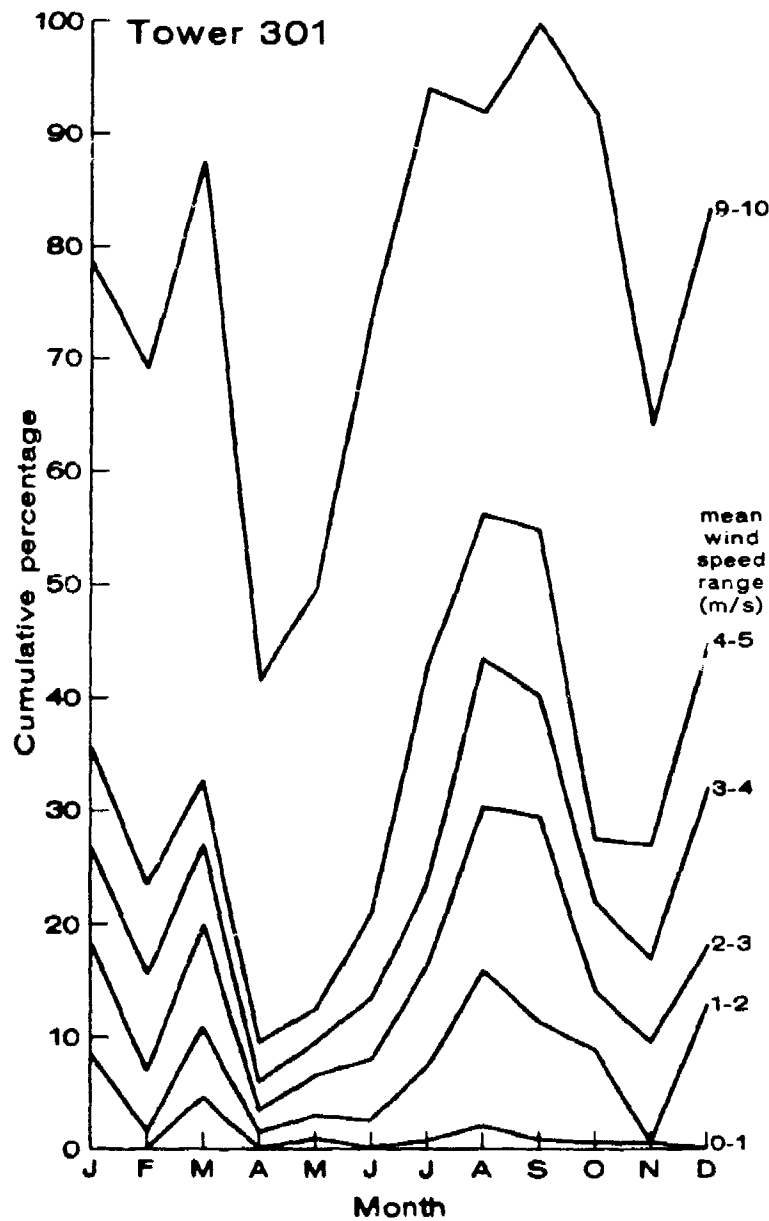


Fig. 1. Cumulative percentage by month of various wind speed thresholds for Tower 301.

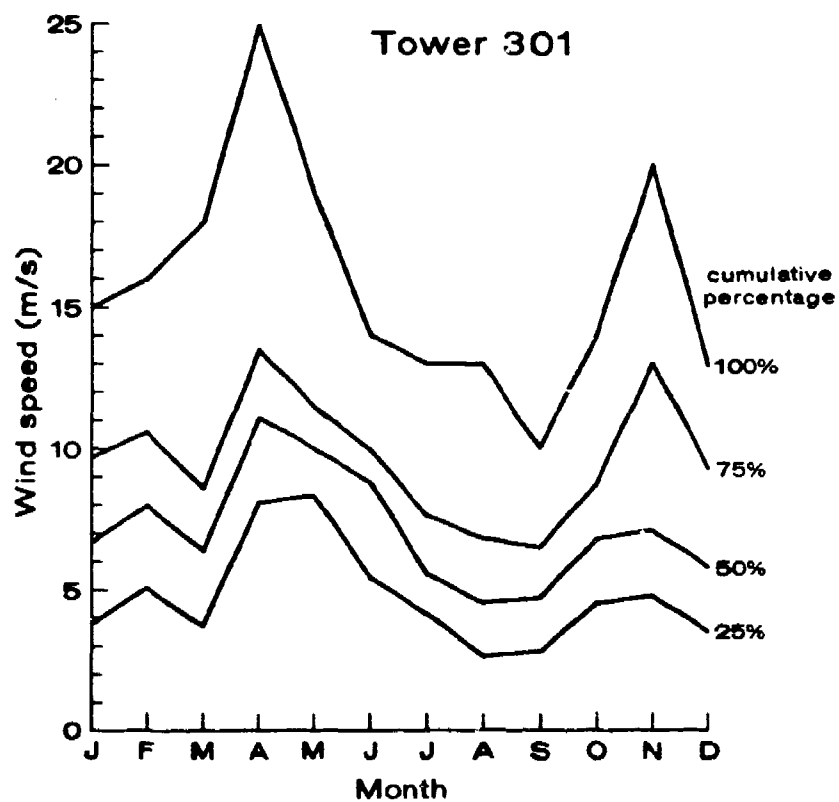


Fig. 2. Same data as Fig. 1 showing quartiles of cumulative percentage.

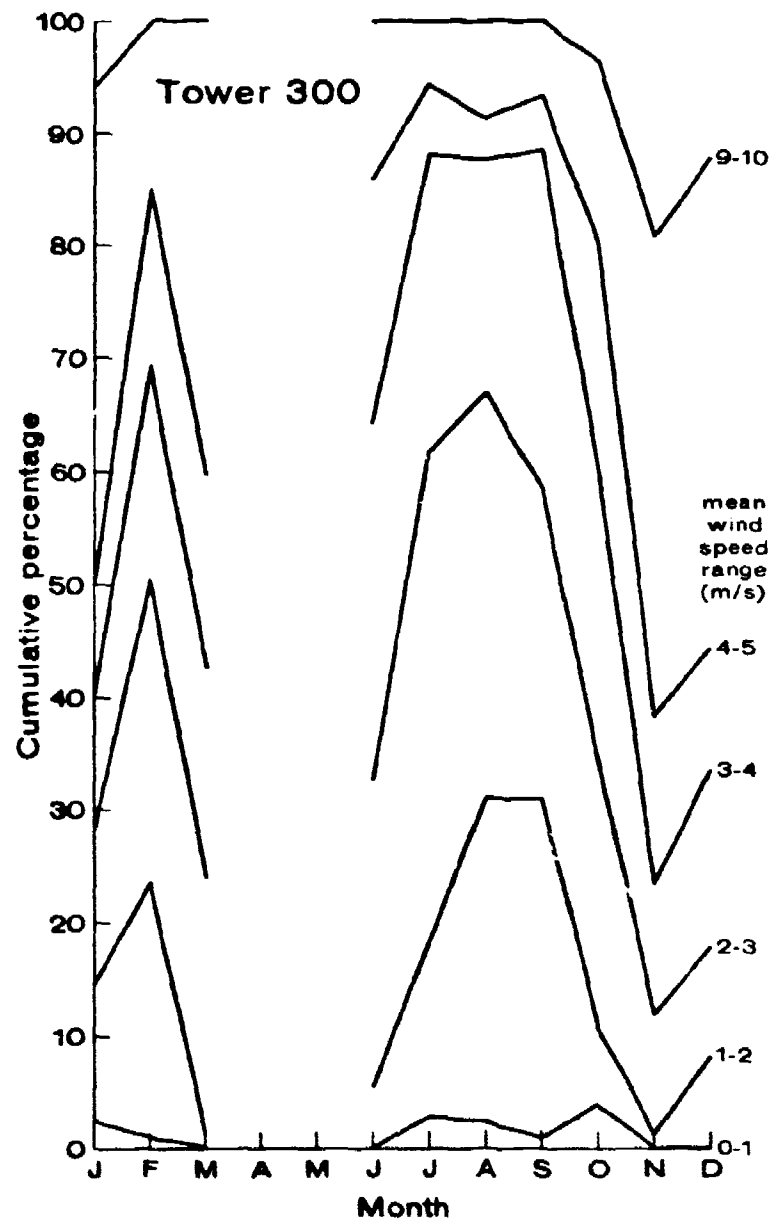


Fig. 3. Cumulative percentage by month of various wind speed thresholds for Tower 300.

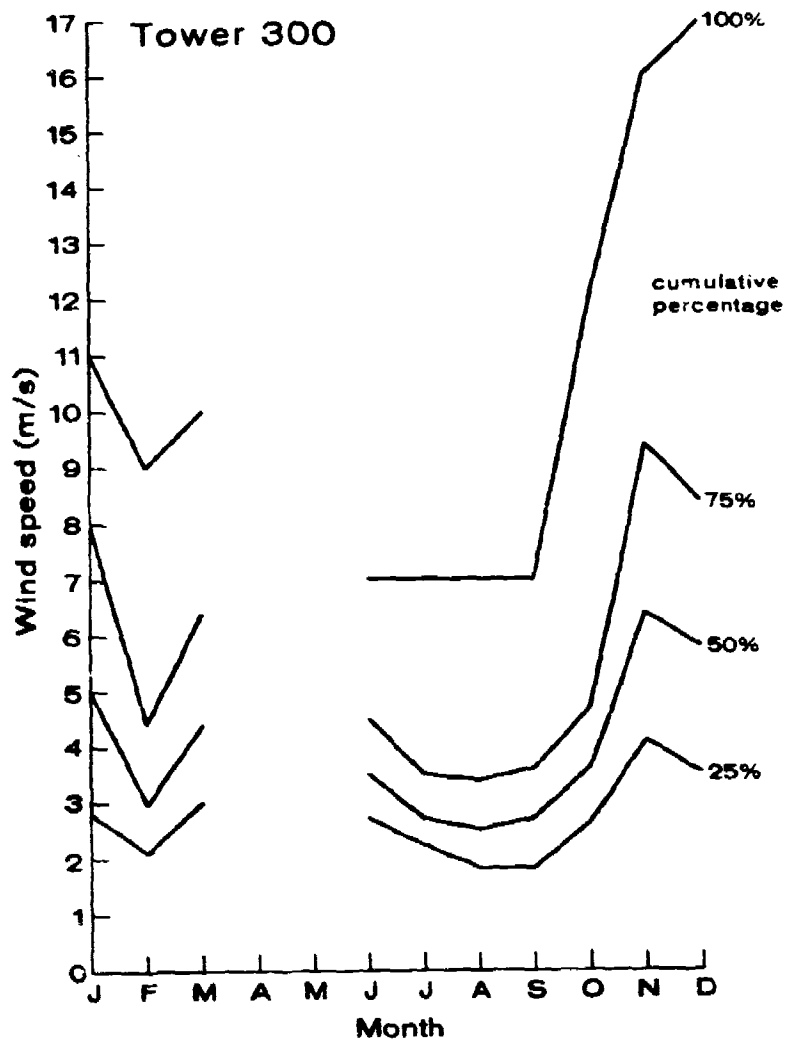


Fig. 4. Same data as in Fig. 3 showing quartiles of cumulative percentage.

towers (at the median) is most consistently near two in July through October. For other months, the ratio varies from 1.0 to 2.7. A tentative explanation of this result is the dominance of local forcing (sea breeze) during the summer/fall period which would create a more westerly wind (as opposed to more northerly wind produced by synoptic forcing) which will have a tendency to minimize upwind terrain/fetch differences between the two sites.

The tables of APPENDIX 1 give the percentage of occurrence and cumulative percentage of occurrence of various wind speed ranges for averaging times of 1 to 6 hr. A comparison of Tower 301 data for 6-hr averages with 1-hr averages shows that with only two exceptions (and only for speeds of less than or equal to 3 m/s) do the cumulative percentages of occurrences differ by more than 3%. This suggests that winds at VAFB are highly persistent in speed. The exceptions are brief periods of low wind speed presumably (see analysis of subsequent section) due to passage of the sea-breeze convergence zone. The most notable exception is March which has a large number of wind speed occurrences less than 1 m/s.

Tower 300 shows this same persistence tendency, with only July exceeding 3% difference between 1- and 6-hr averages at 3 m/s or less.

Diurnal dependence

Figs. 5-9 give the diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for each season for Towers 300 and 301. The results show a strong tendency for low wind speeds to occur in the 04 to 08 or 08 to 12 time periods and high winds in the 12 to 16 or 16 to 20 time periods (see APPENDIX 2 for tables of results).

A simple measure of the strength of the diurnal pattern of light winds in the morning followed by strong winds after noon is given by the ratio of

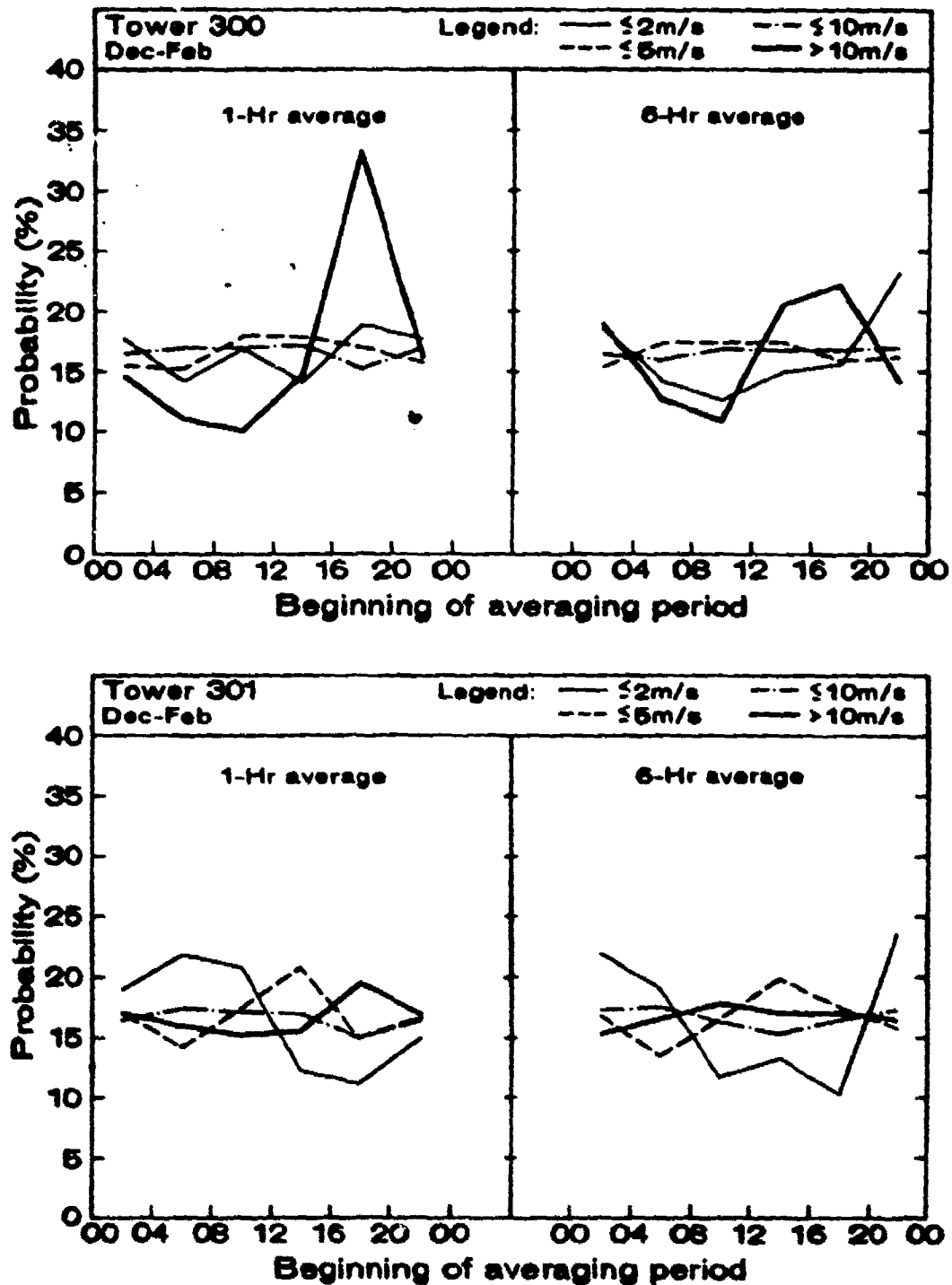


Fig. 5. Diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for December through February.

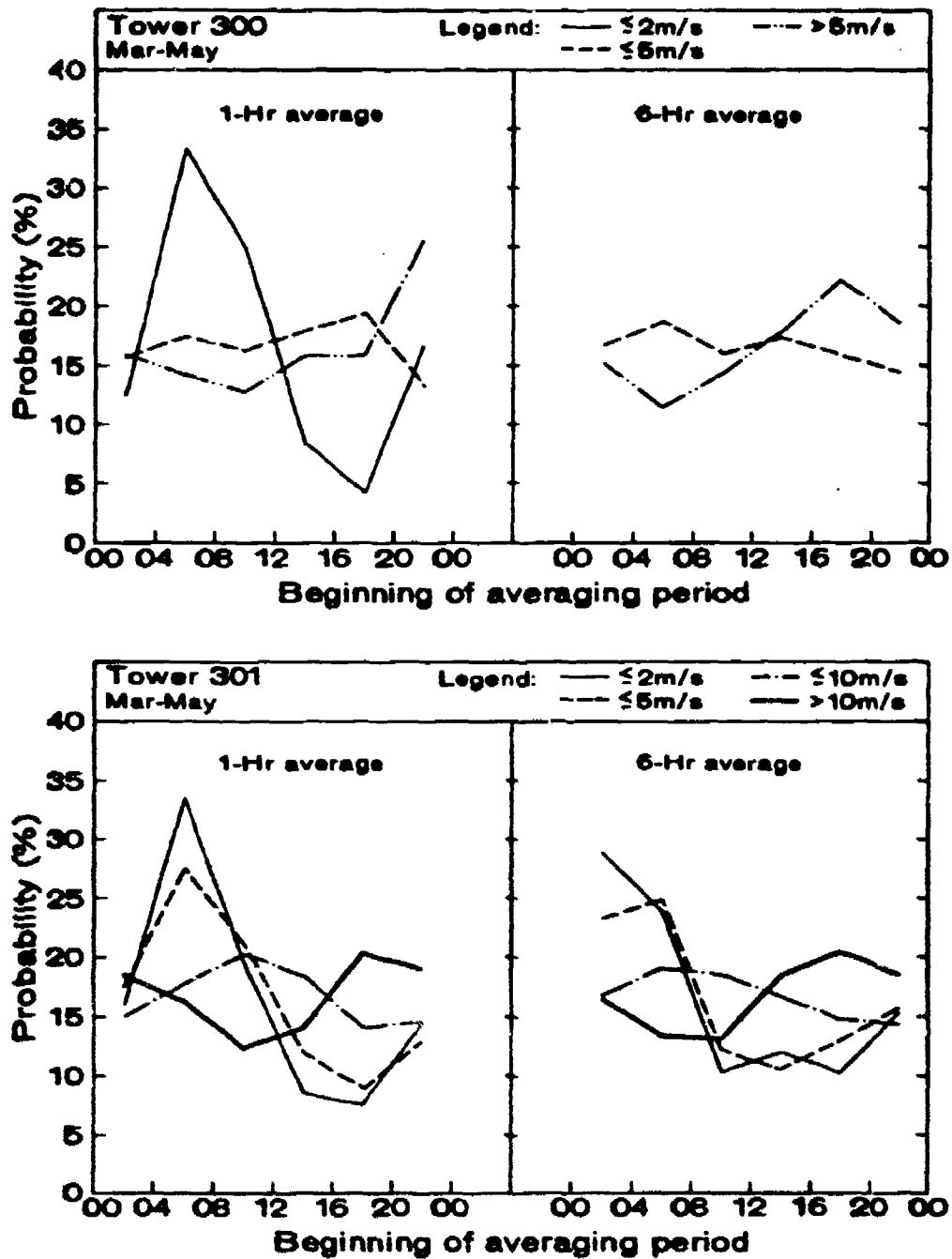


Fig. 6. Diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for March through May.

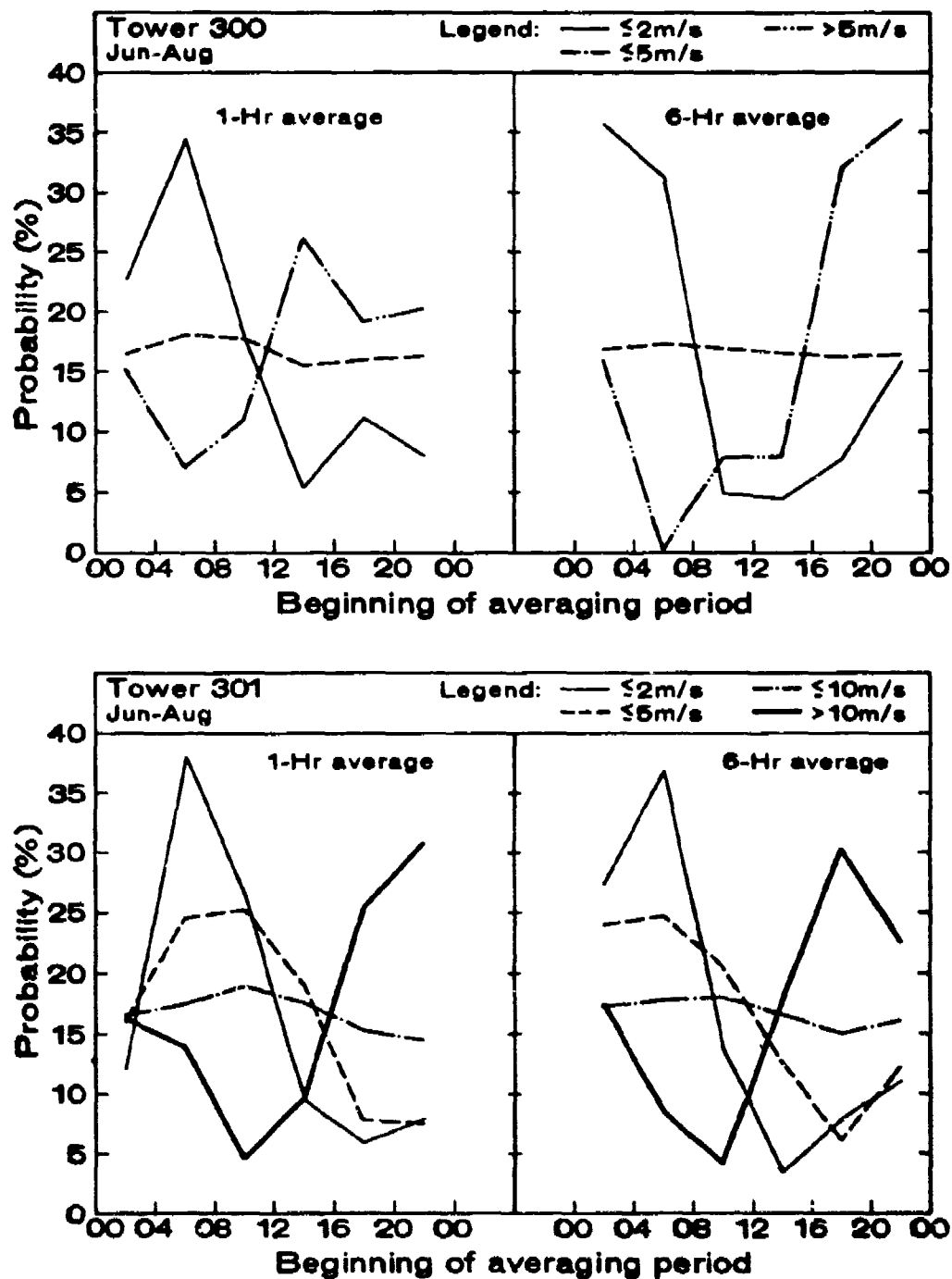


Fig. 7. Diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for June through August.

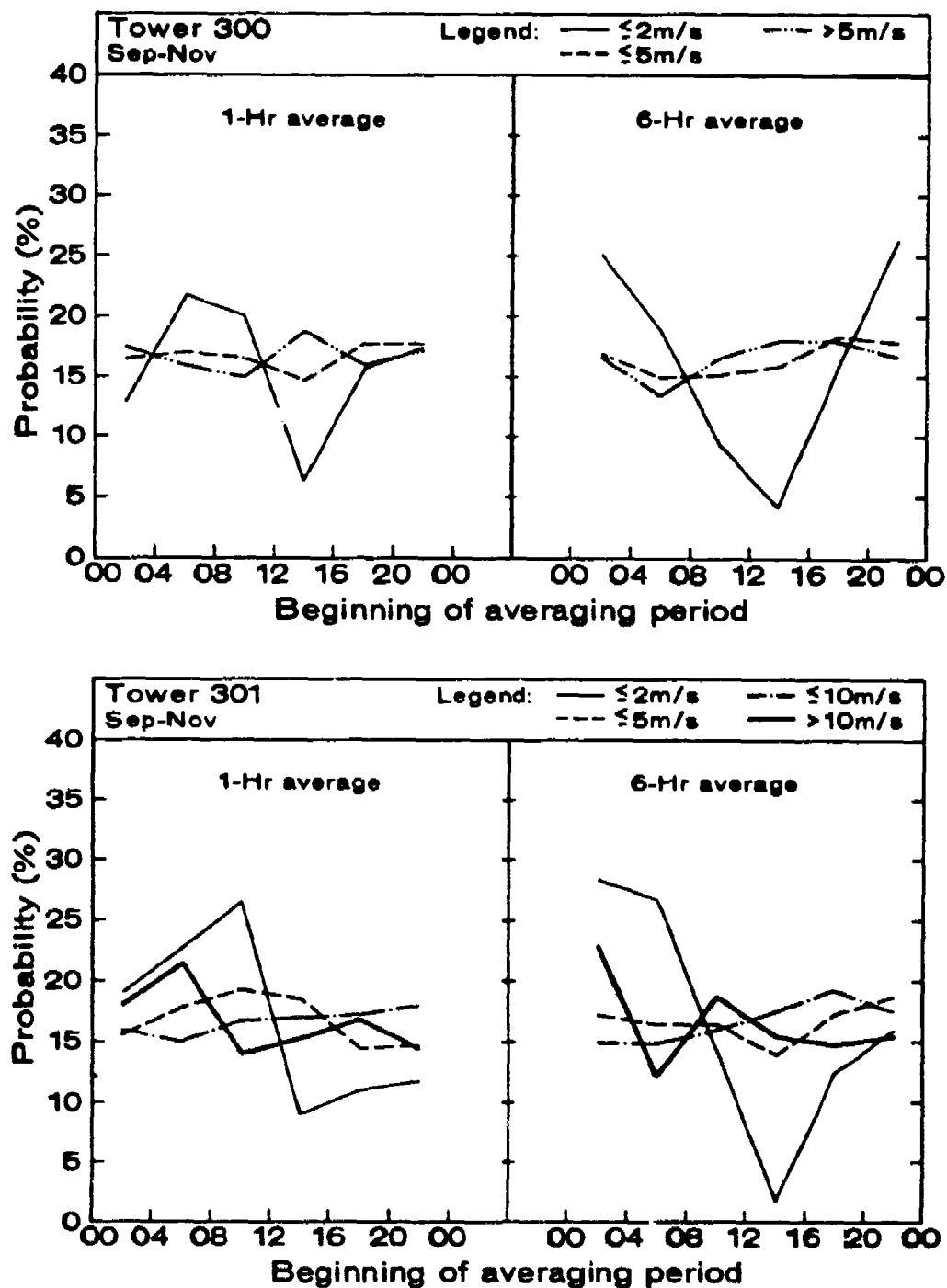


Fig. 8. Diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for September through November.

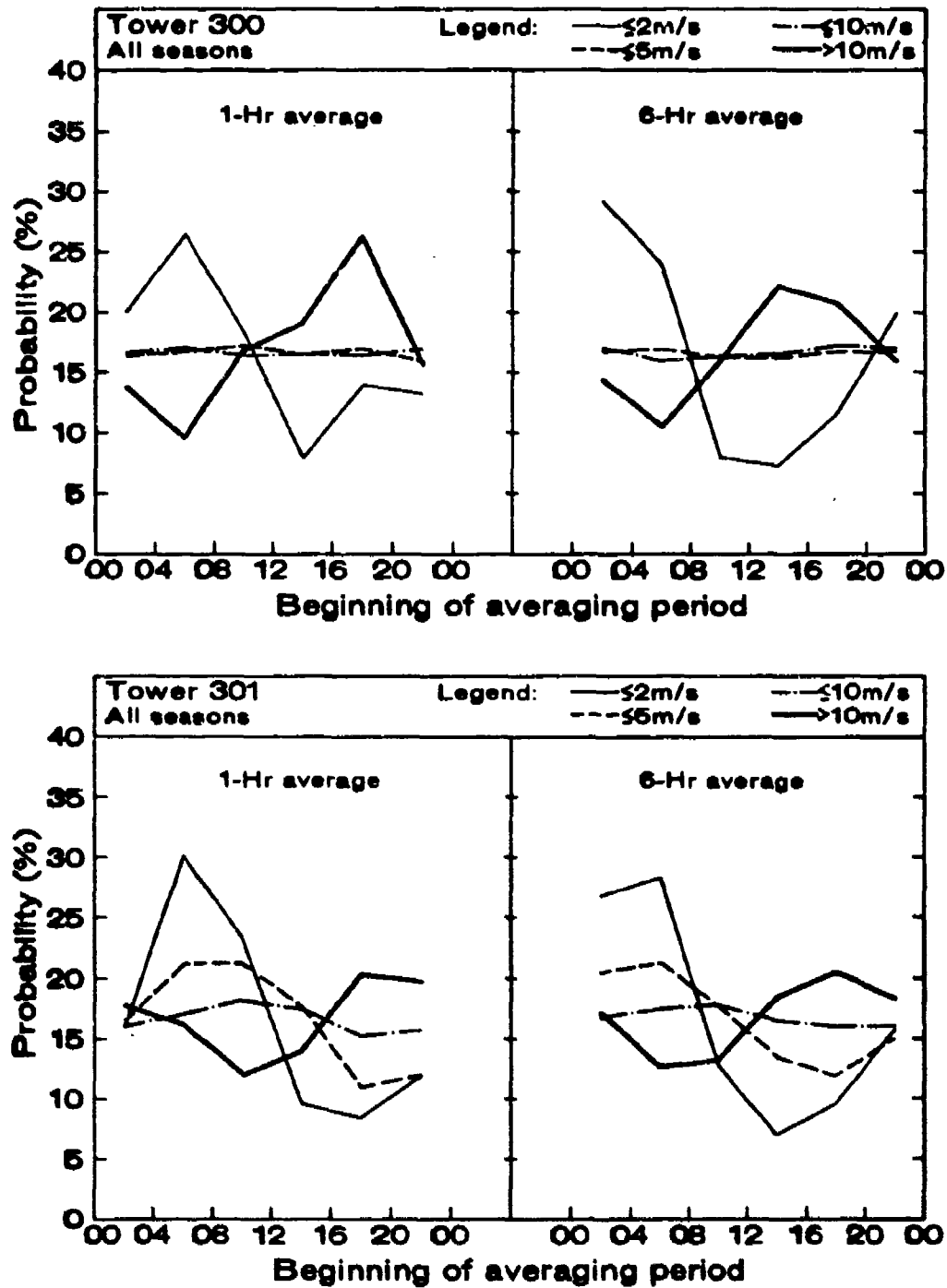


Fig. 9. Diurnal probability of occurrence for various wind speed ranges and 2 different averaging times for all seasons combined.

percentages of the probability of occurrence at the morning maximum divided by the afternoon minimum for the speed ≤ 2 m/s curves. A large value of this ratio suggests strong diurnal forcing, whereas a value of 1.0 indicates no diurnal dependence. Table 1 shows the results for both towers when the 1-hr averaged winds were used.

This criterion reveals June-August (March-May) as the season having the strongest diurnal forcing at Tower 301 (300). (It should be noted that Tower 300 produced almost no data in April and May, however.) The June-August values are the same at the two towers for speeds less than 2 m/s, corroborating the results from Figs. 2 and 4 where the speed distributions were observed to behave similarly for the summer/fall period.

If the ≤ 5 m/s curve is used instead of ≤ 2 m/s, the diurnal pattern remains evident for March-August at Tower 301 but has vanished for Tower 300. This is attributed to the generally lower wind speeds at Tower 300.

Table 1. Ratio of percentages of the probability of occurrence at the morning maximum divided by the afternoon minimum.

	TOWER 301		TOWER 300	
	≤ 2 m/s	≤ 5 m/s	≤ 2 m/s	≤ 5 m/s
DEC-FEB	1.9	0.7	1.2	1.1
MAR-MAY	4.5	3.1	7.4	0.8
JUN-AUG	6.3	3.3	6.3	1.2
SEP-NOV	2.9	1.3	3.3	1.2
ALL DATA	3.5	1.9	3.3	1.0

When the 6-hr averaged wind speeds are used (see Figs. 5-9) the diurnal distributions are similar to those previously described.

Probability distributions

These data were plotted as a probability distribution and compared to a Weibull distribution, which is frequently used to represent wind speed data (Takle and Brown, 1978; Takle, Brown, and Davis, 1978). The Weibull probability density function is given by

$$P_x^W(x) = \frac{k}{c} \left(\frac{x}{c}\right)^{k-1} \exp\left[-\left(\frac{x}{c}\right)^k\right], \quad x \geq 0$$

$$= 0, \text{ otherwise,}$$

and the cumulative distribution function is

$$F_x^W(x) = 1 - \exp\left[-\left(\frac{x}{c}\right)^k\right], \quad x \geq 0$$

$$= 0, \text{ otherwise,}$$

where c is the scale parameter, having the same units as x (m/s or knots), and k is the (dimensionless) shape parameter. A graphical method for determining c and k given by Takle and Brown (1978) has been shown to give quite accurate values of c and k when compared with linear least squares or maximum likelihood methods. Fig. 10 shows the use of the Weibull probability paper for determining c and k for all the data from the 300 ft level of Tower 301. If the distribution of wind speeds represents a Weibull distribution, the plot of the cumulative probability in Fig. 10 will be a straight line. The value of c is then given by the crossing of the 63.2% level (denoted by the fiducial marks and dashed line), and the value of k is determined by transferring the slope of the line from the fiducial point above the graph to the scale at the left.

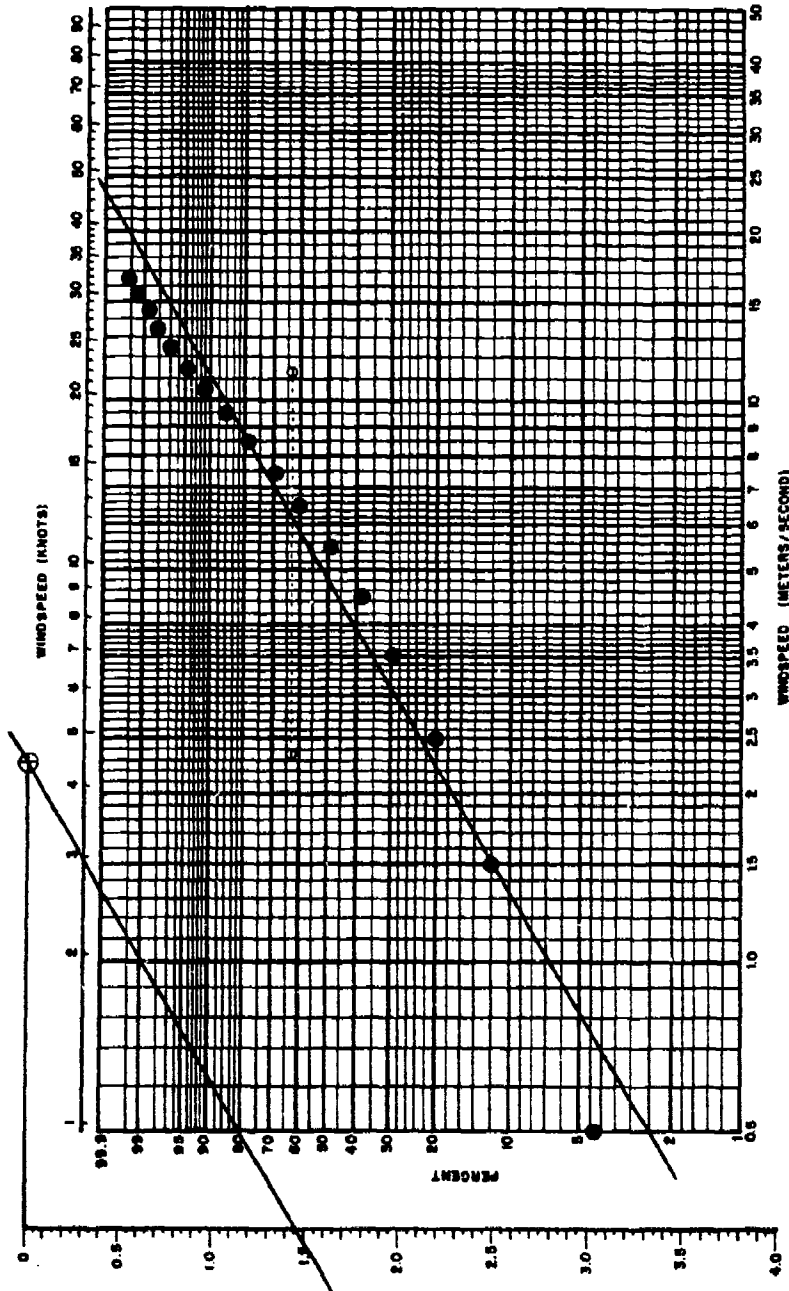


Fig. 10. Weibull probability paper used to determine scale and shape parameters for Weibull distribution representing data from 300 ft level of Tower 301.

Fig. 11 shows the resulting Weibull probability density function plotted with the raw data from Tower 301; Fig. 12 shows analogous results for Tower 300. The only time periods used in this analysis were those times when both towers were producing good data. The fit to a Weibull distribution is seen to be quite poor for wind speeds below 4 m/s at Tower 300 and below 10 m/s for Tower 301. The data were then divided into offshore and onshore wind direction categories (crudely defined as 0° to 180° and 180° to 360° , respectively) and replotted as shown in Figs. 13 and 14 for Tower 301 and Figs. 15 and 16 for Tower 300. Only those observations for which both towers registered wind in the same (onshore or offshore) direction categories were used for these plots. This reduces the size of the data set to 65.5% of the total number of hours both towers had good data, but eliminates the possibility that different synoptic-scale conditions might be the cause of differences in the distributions between the two towers.

Of these four plots, only onshore winds at Tower 301 are very well represented by a Weibull distribution. Although the Weibull distribution has represented wind speed data over flat terrain quite well (Takle and Brown, 1978), it seems much less capable of representing data from a station in complex terrain that is subject to sea breezes.

Multi-level speeds vs. direction

Data from all five levels on Towers 300 and 301 were analyzed to find the mean speeds for each of 12 direction categories. The events also were separated into three stability categories, as shown in Table 2.

Table 2 shows that both towers detected a preference for unstable conditions during the period of record. Stable was the least likely condition at Tower 301, and neutral was least observed at Tower 300. The fewer number of observations at Tower 300, particularly the low number

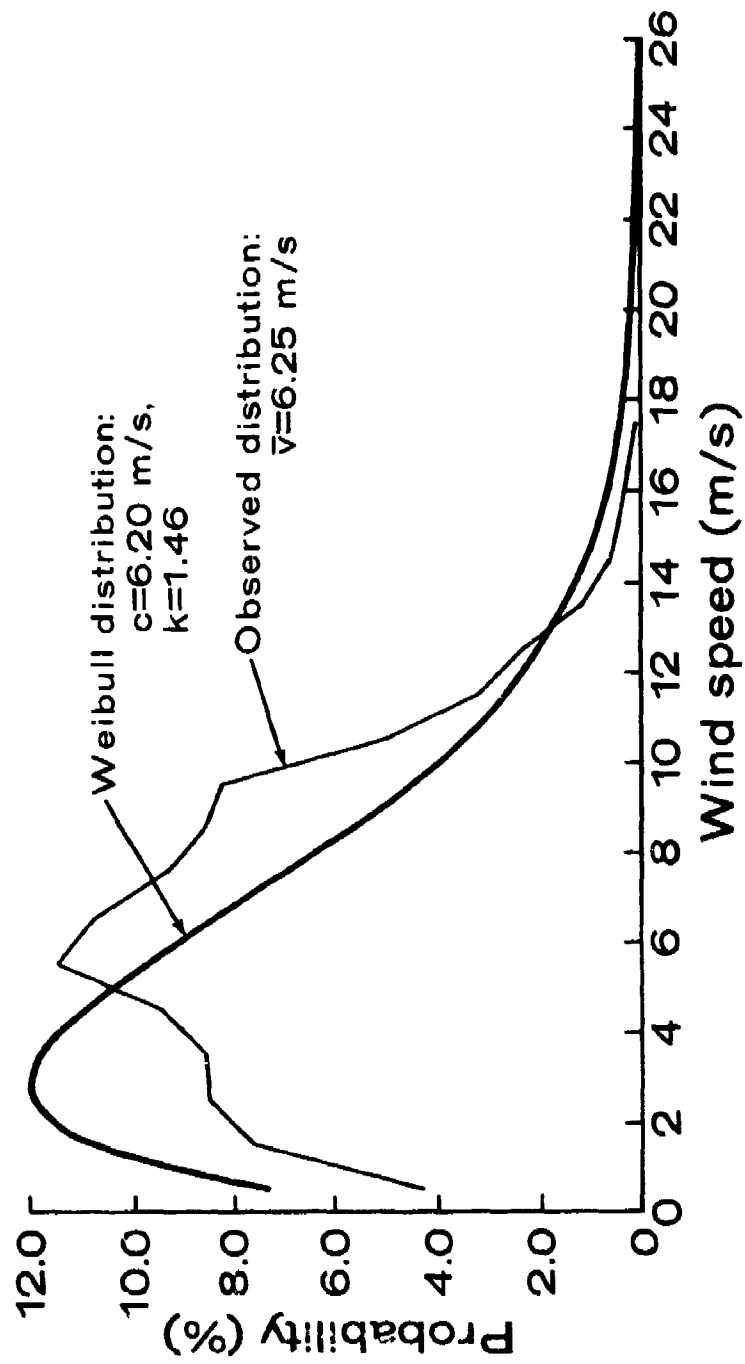


Fig. 11. Probability distribution for data of Fig. 10 and corresponding Weibull curve. Number of observations: 2826.

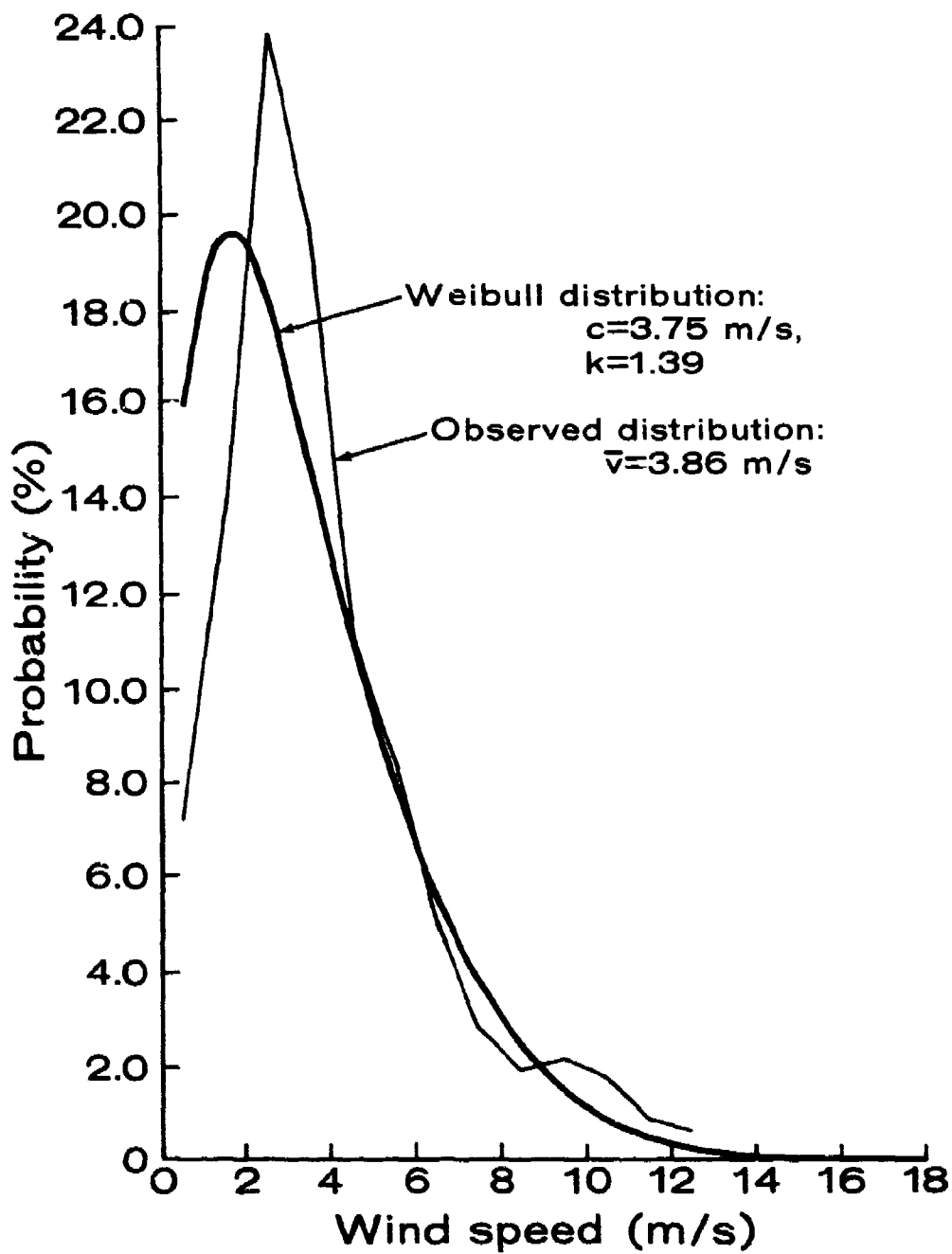


Fig. 12. Probability distribution and corresponding Weibull curve for data from 300 ft level of Tower 300. Number of observations: 2826.

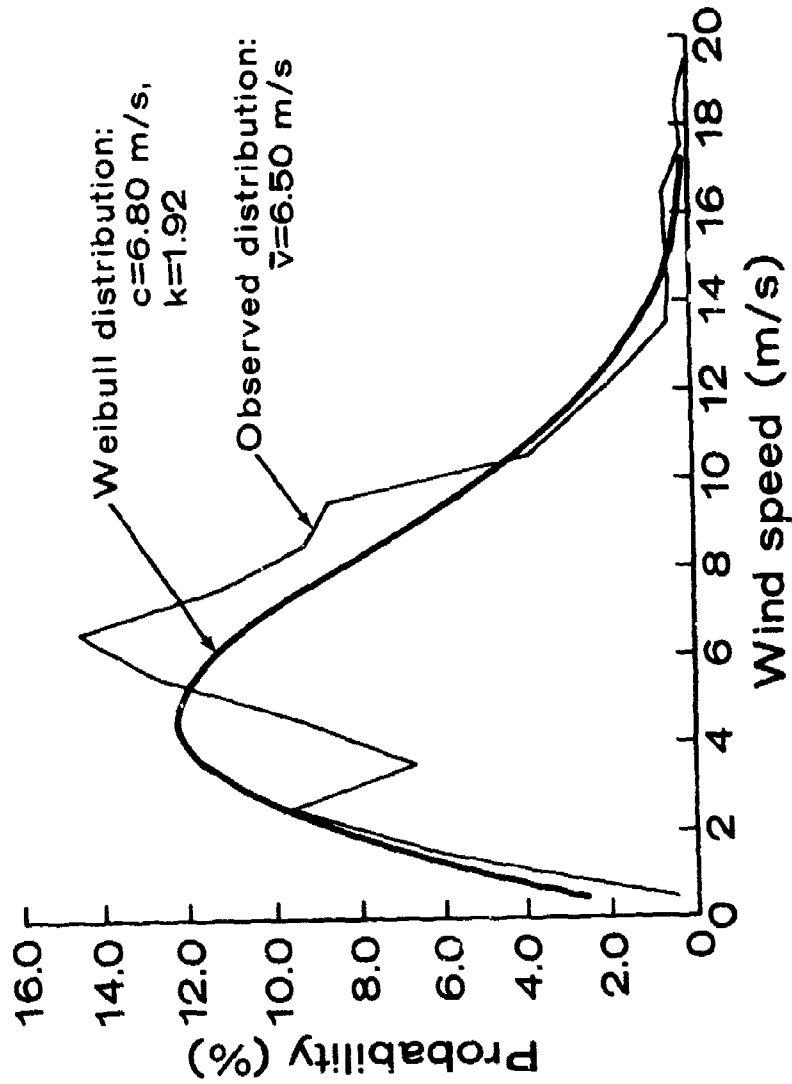


Fig. 13. Probability distribution and corresponding Weibull curve for data in offshore wind direction from 300 ft level of Tower 301. Number of observations: 941.

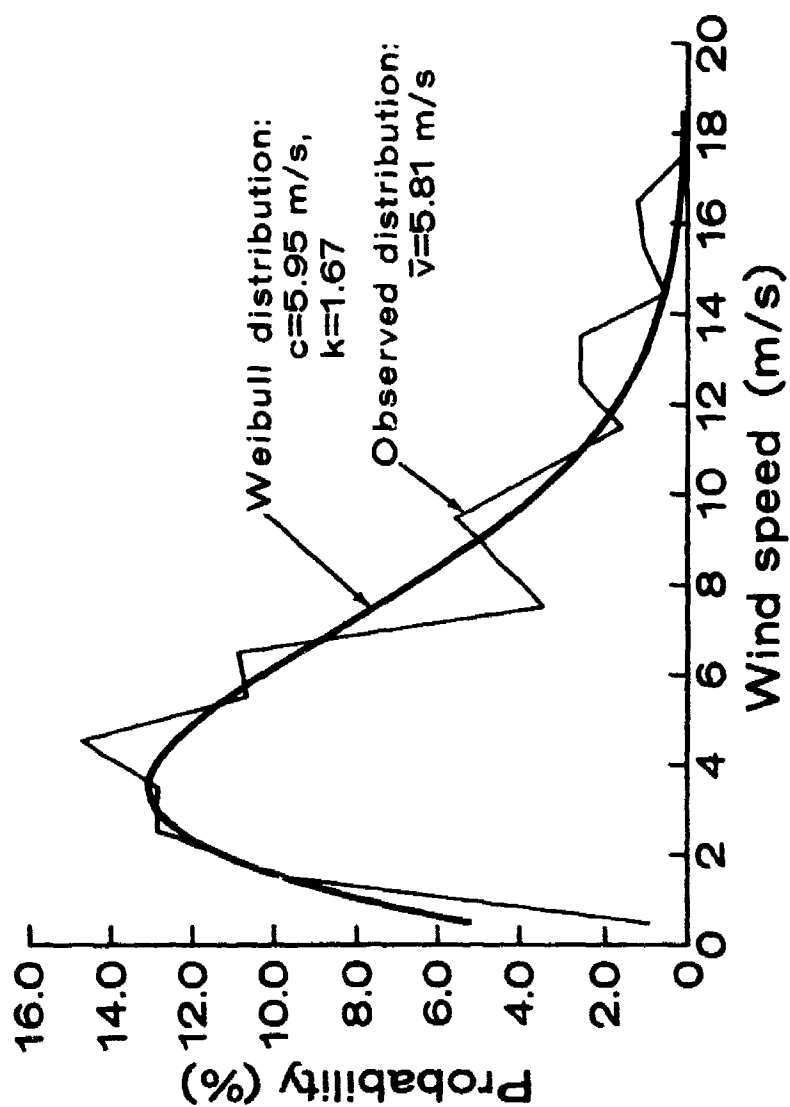


Fig. 14. Probability distribution and corresponding Weibull curve for data in onshore wind direction from 300 ft level of Tower 301. Number of observations: 911.

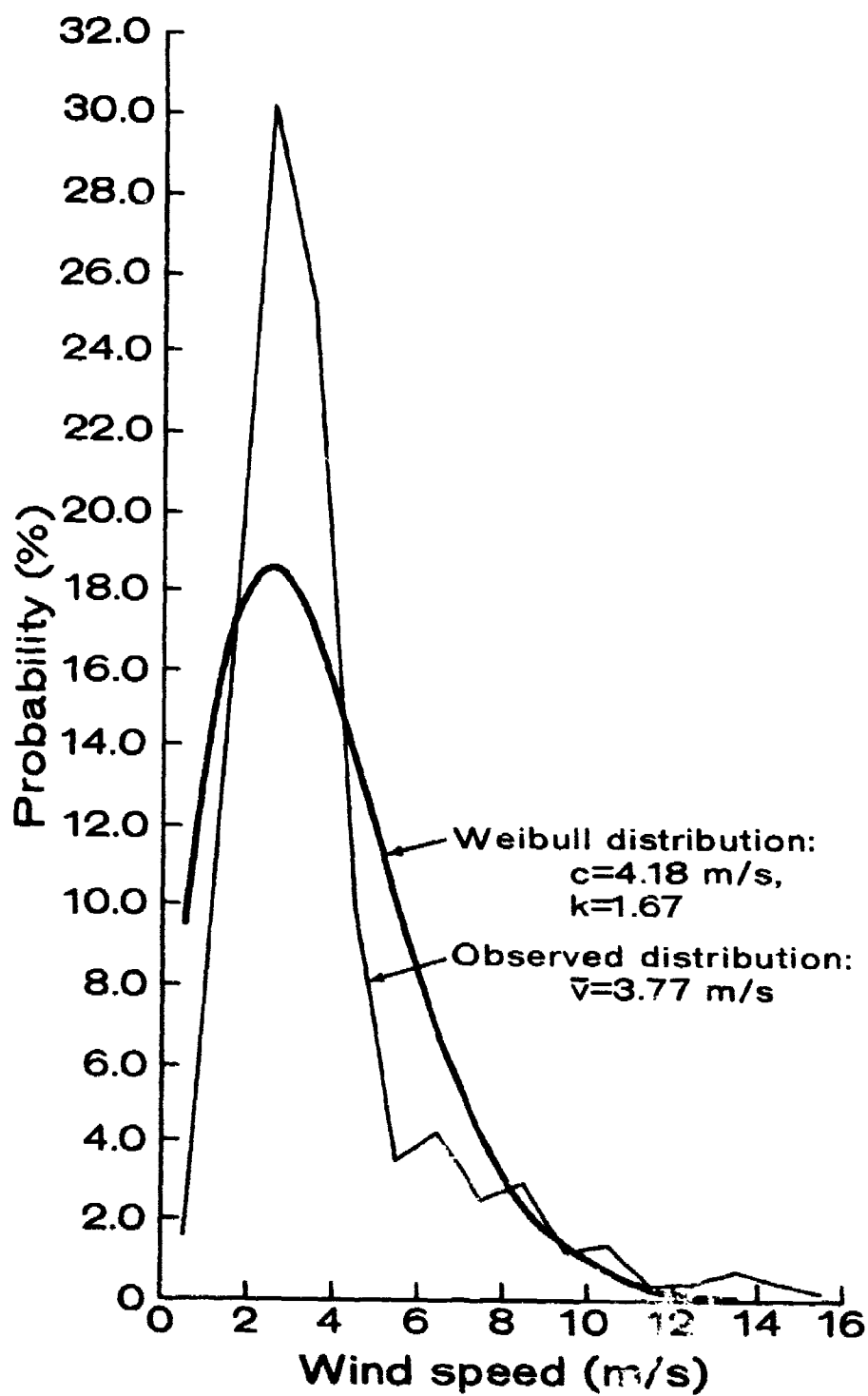


Fig. 15. Probability distribution and corresponding Weibull curve for data in offshore wind direction for the 300 ft level of Tower 300. Number of observations: 941.

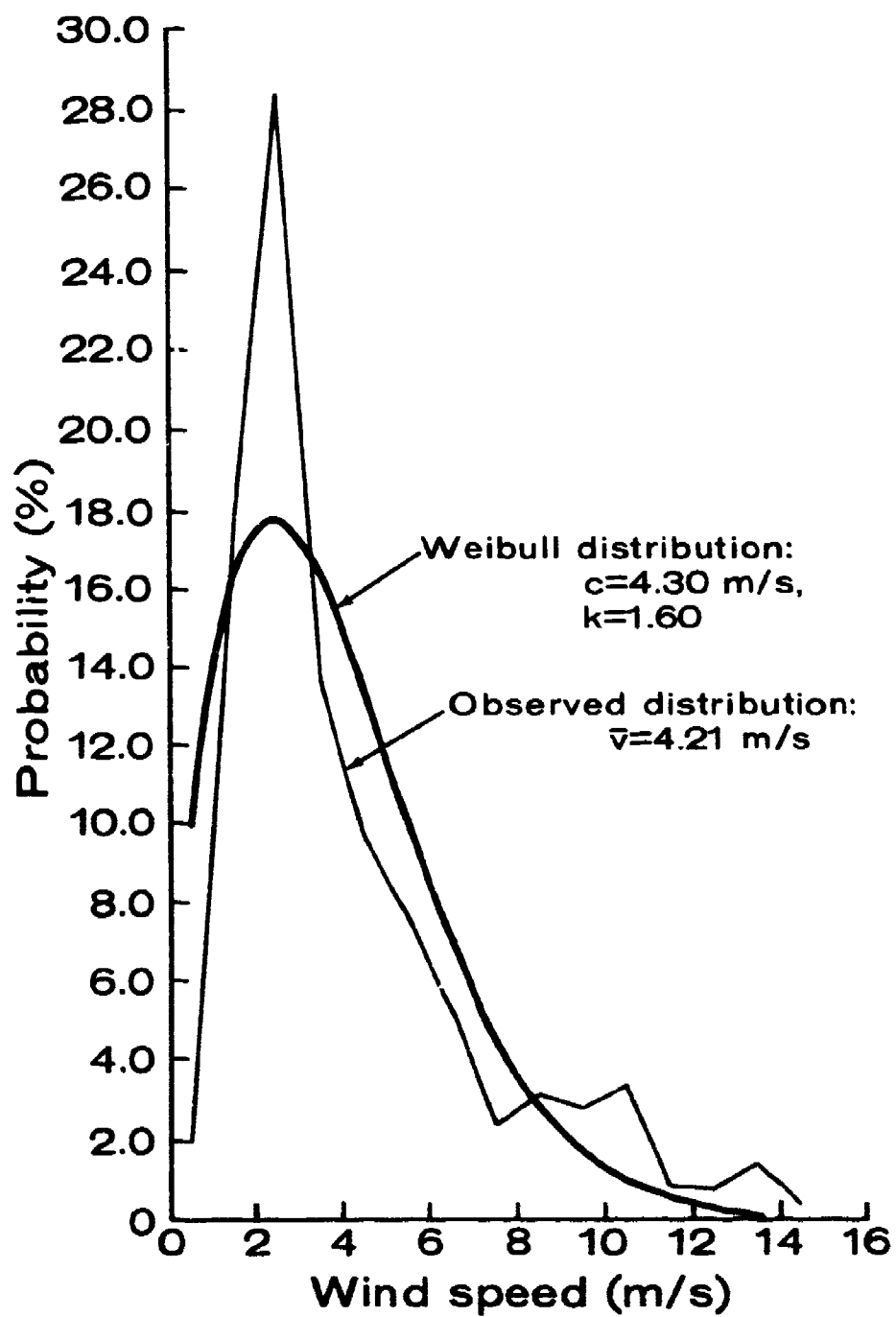


Fig. 16. Probability distribution and corresponding Weibull curve for data in onshore wind direction from the 300 ft level of Tower 300. Number of observations: 911.

Table 2. Distribution of observations among stability classes for Towers 300 and 301.

	TOWER			
	300		301	
	<u>Observations</u>	<u>%</u>	<u>Observations</u>	<u>%</u>
Unstable	1435	53	2233	57
Stable	448	16	1120	28
Neutral	<u>858</u>	<u>31</u>	<u>596</u>	<u>15</u>
Total	2741	100	3949	100

during the high-wind months of April and May, could account for the reduced number of observations of neutral conditions.

Fig. 17 shows the results for neutral stability at Tower 301. The distribution among direction categories shows the dominance of northerly winds for neutral stability, with 93% of the winds coming from a 90° sector centered on 355°. A second peak, both in speed and number of occurrences (with only 5% of the data), is centered around 160°.

Analogous data for Tower 300, shown in Fig. 18, reveals a peak speed and frequency of occurrence (~55%) around 325°. A direction range having slightly higher speeds representing about 17% of the data is centered around 130°.

Fig. 19 gives the observations during unstable conditions at Tower 301 and shows peaks in both speed and frequency of occurrence nearly the same as in the neutral case. The northerly peak (~86% of the data) is shifted clockwise by about 30°, and the speeds are reduced by about 35%. Minima in both speed and number of observations occur near 90° and 250°, as in the neutral case. Observations at Tower 300 (Fig. 20) during unstable conditions generally corroborate the Tower 301 results and differ from neutral results at the same tower by being rotated clockwise about 30°.

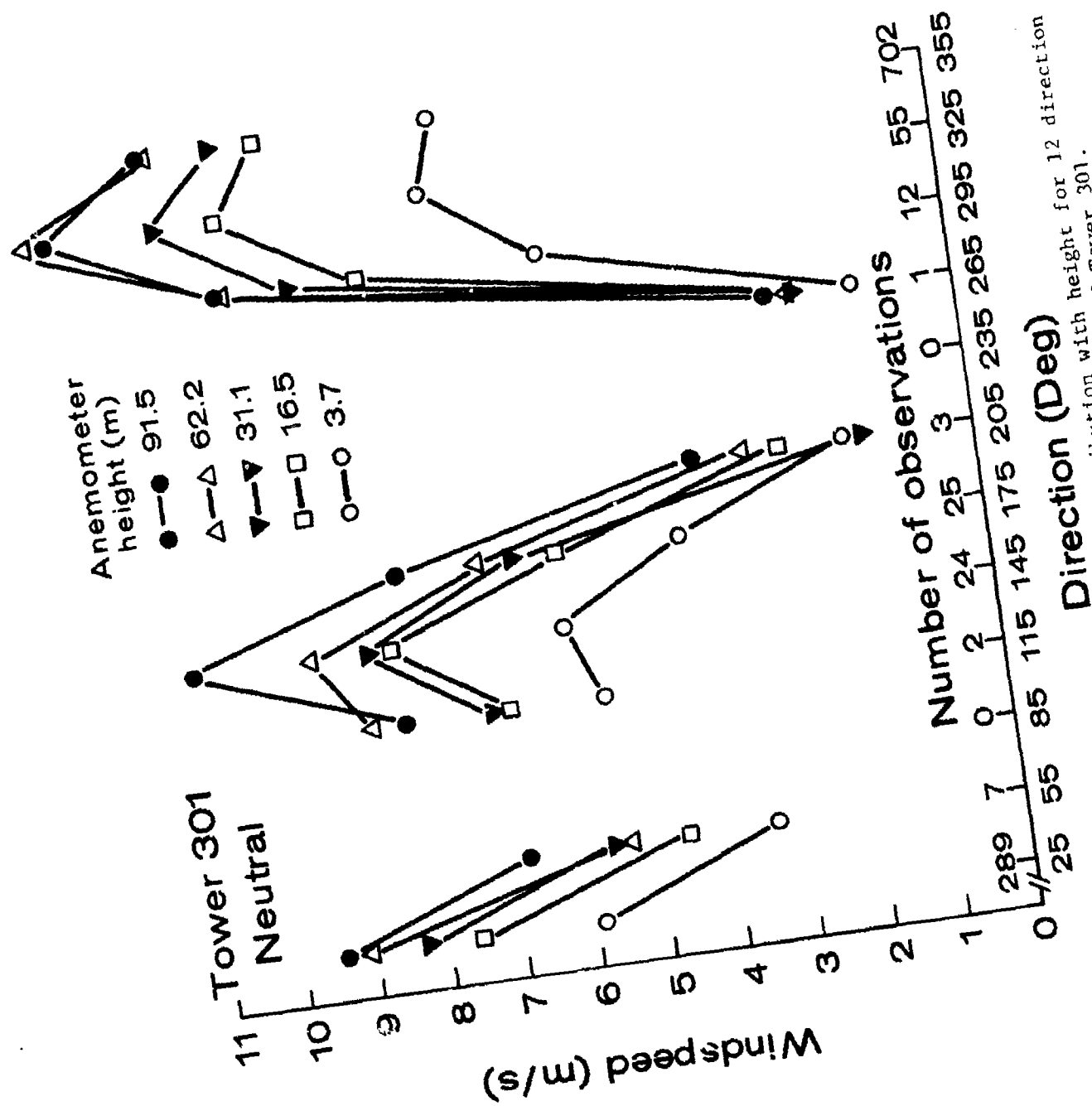


Fig. 17. Mean wind speed distribution with height for 12 direction categories for neutral stability of Tower 301.

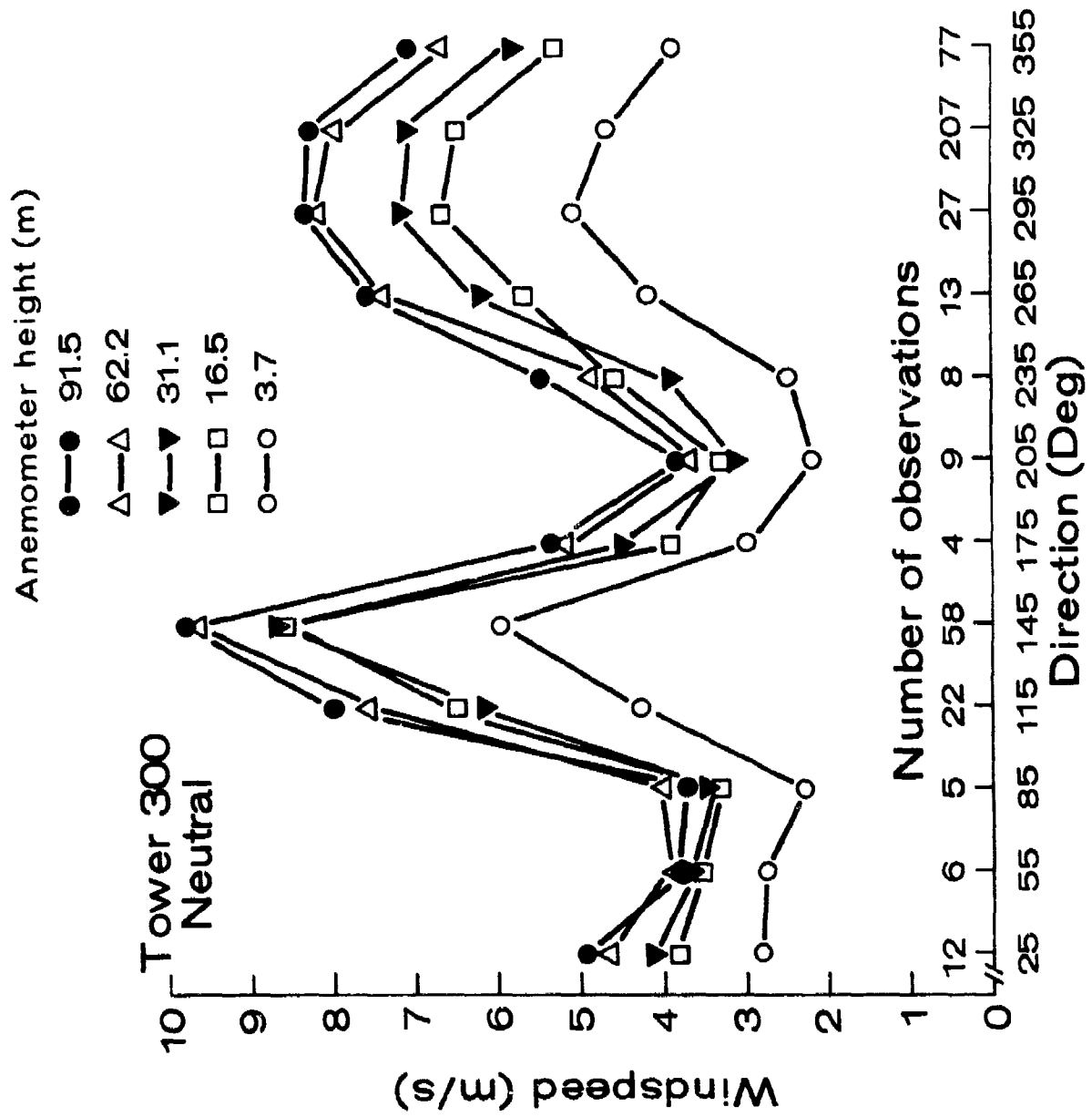


Fig. 18. Mean wind speed distribution with height for 12 direction categories for neutral stability at Tower 300.

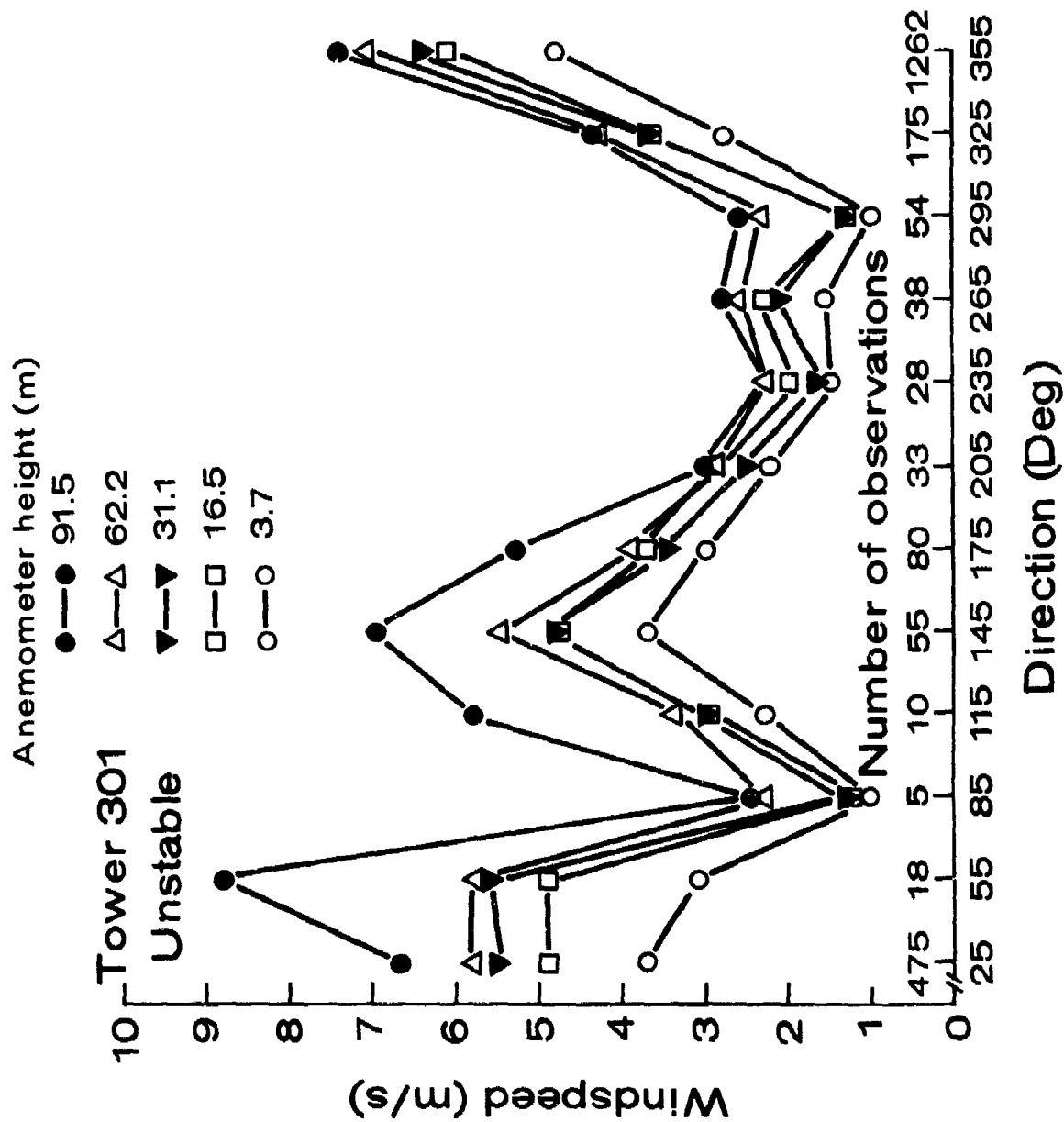


Fig. 19. Mean wind speed distribution with height for 12 direction categories for unstable conditions at Tower 301.

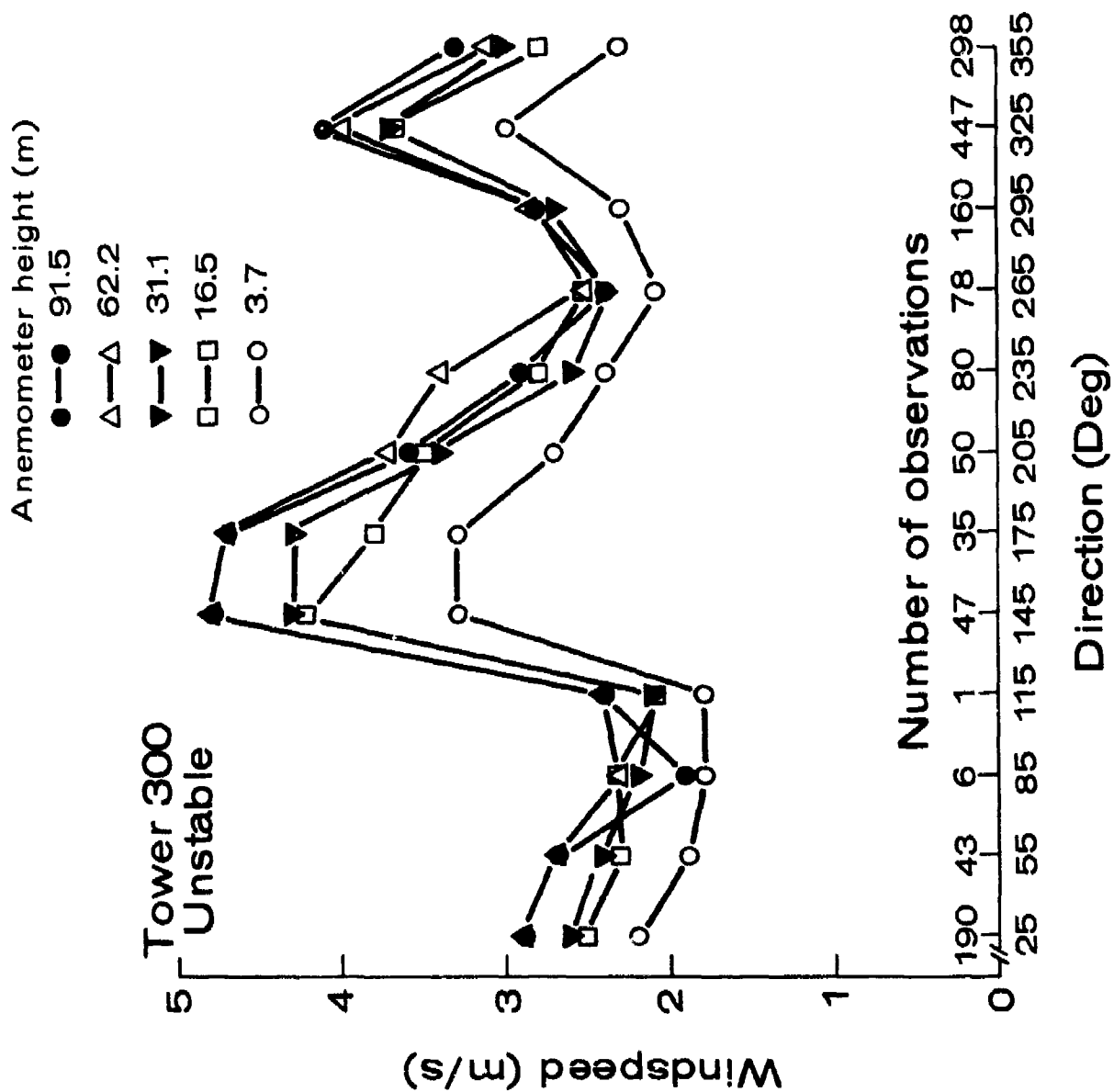


Fig. 20. Mean wind speed distribution with height for 12 direction categories for unstable conditions at Tower 300.

Fig. 21 shows that at Tower 301, even under stable conditions, mean wind speeds are strongest from the northwest. The peak in number of observations, however, has shifted to slightly east of north but still accounts for 82% of the total observations. The secondary peak in speeds from the southeast is notably absent. Again, the Tower 300 data (Fig. 22) show similar behavior. There is a slight tendency for peak speeds to occur below the top of the tower for stable conditions, this tendency being more evident at Tower 300. Also, Tower 301 (and Tower 300 for unstable conditions) shows a slight preference for higher wind speed at the 16.5 m level than immediately above when winds are from 180° - 280° . This suggests a speed-up as observed by Bradley (1980) for upslope flow. The data suggest that winds directly upslope and directly downslope are generally rare and of lower speed. Upslope winds do, however, indicate some tendency for a local maximum below 300 ft.

By far, the most frequently observed wind direction is the 90° sector centered on 355° . This is true for both towers under all stabilities. Winds from this sector generally have the highest speeds as well. A secondary peak near 160° and minima near 70° and 205° suggest that wind rarely flows directly upslope or downslope but favors cross-slope directions. Upslope winds, when they occur, are generally of lower speed than the mean and tend to have a local maximum speed below 300 ft. Minima in both speeds and number of observations occur at 70° and 205° .

SUMMARY

The results presented are an analysis of wind direction, wind speed, and wind speed persistence at Vandenberg Air Force Base. The figures and tables give the seasonal and diurnal probabilities of experiencing wind speeds of any range. A distribution function known to be applicable to

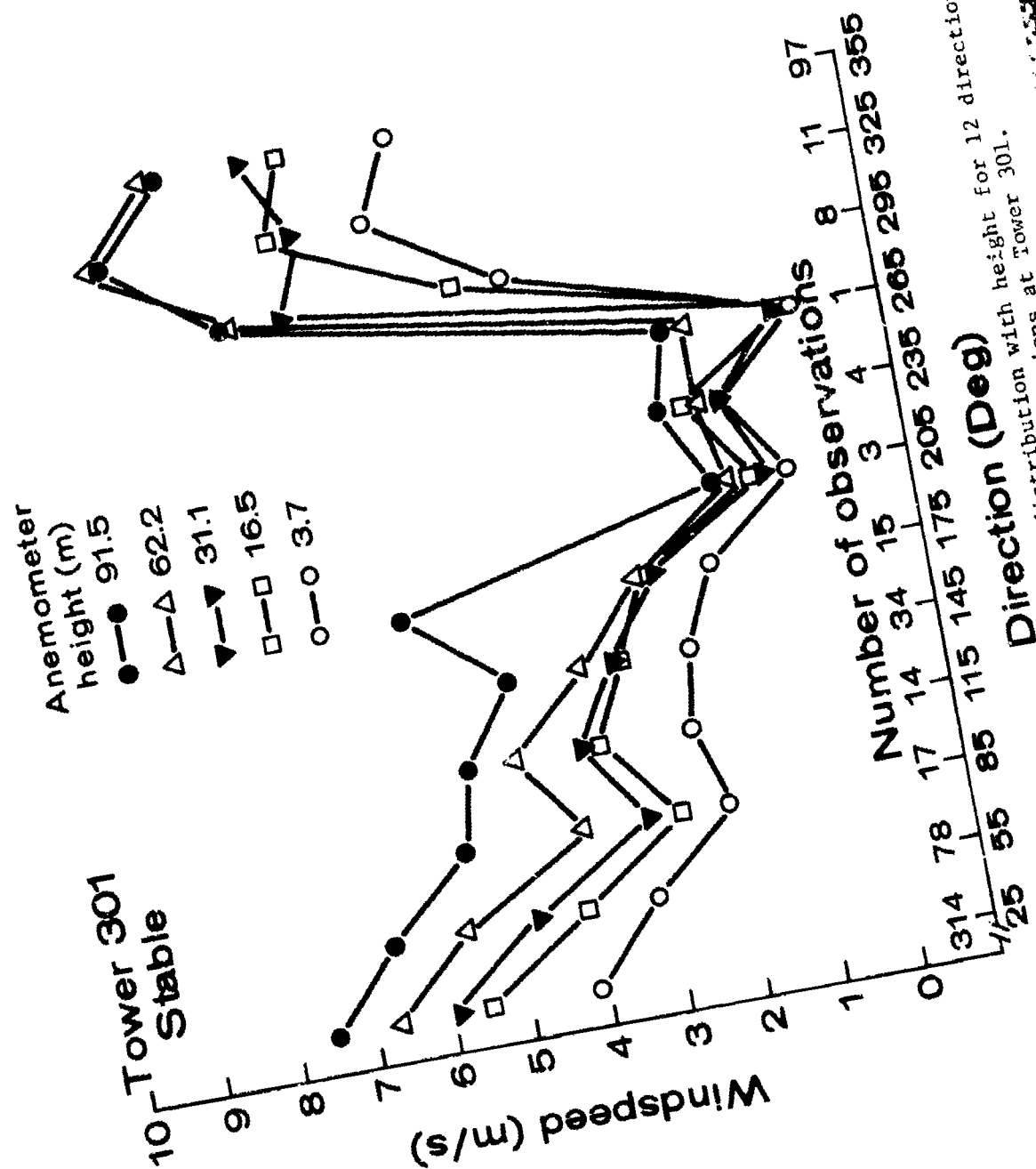


Fig. 21. Mean wind speed distribution with height for 12 direction categories for stable conditions at Tower 301.

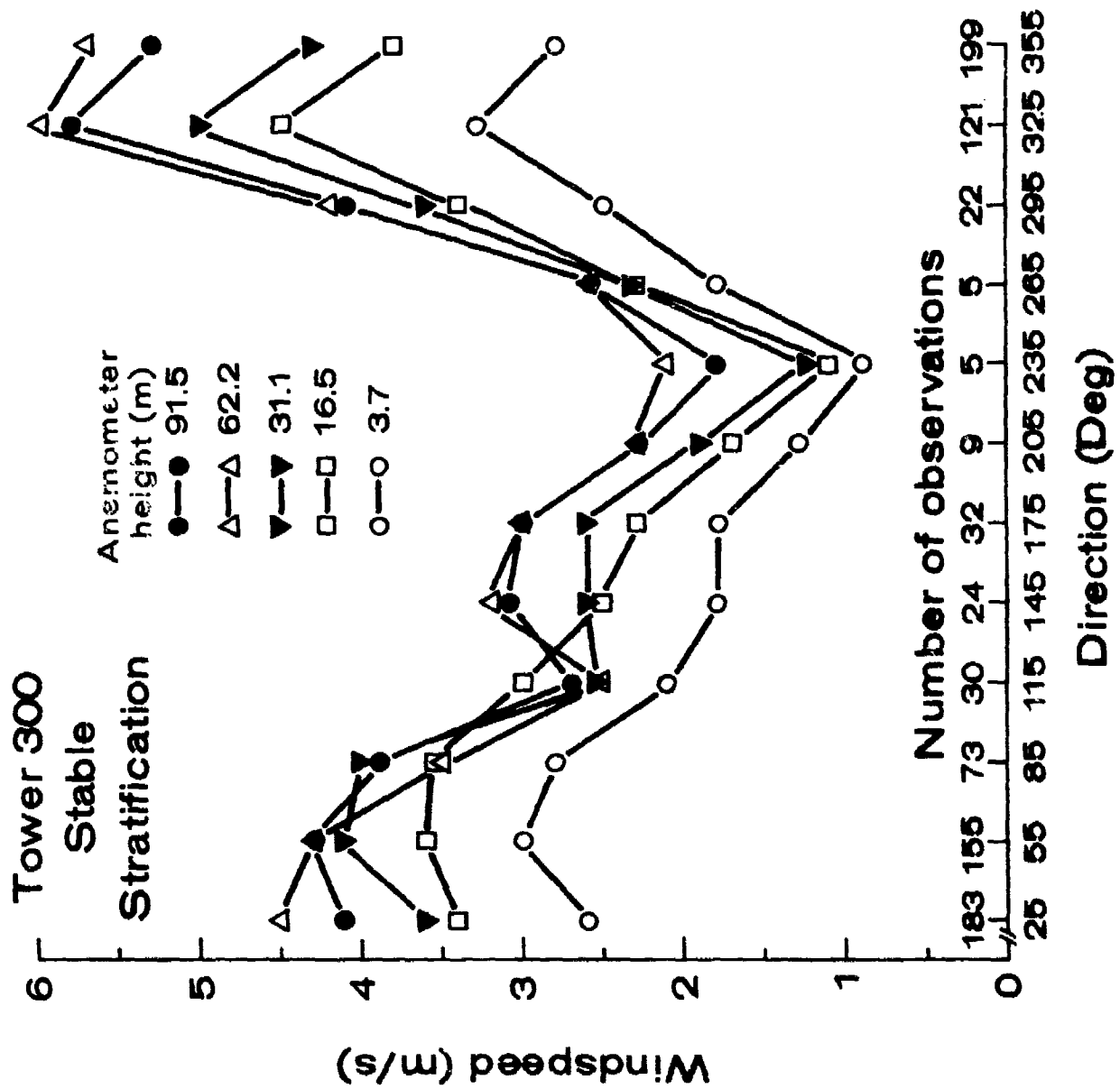


Fig. 22. Mean wind speed distribution with height for 12 direction categories for stable conditions at Tower 300.

wind speed distributions over flat terrain does not represent the data well from Vandenberg. This failure is attributed to the complex orography and resulting complexities in the meteorological flow field.

ACKNOWLEDGEMENT

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APPENDICES

1. Mean wind speed probability of occurrence for various averaging times.
2. Probability of occurrence (%) of periods having various mean wind speeds, as functions of averaging period and time of day period begins.

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Jan.

Total No. Hours of Data: 438

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	2.5	1.4	1.4	0.7	0	0	2.5	1.4	1.4	0.7	0	0
1-2	10.0	9.9	7.8	7.6	8.3	8.4	12.6	11.3	9.2	8.3	8.3	8.4
2-3	9.4	9.2	11.3	9.7	10.0	10.0	21.9	20.5	20.5	18.0	18.3	18.3
3-4	6.4	7.8	8.1	9.2	9.0	8.6	28.3	28.3	28.6	27.2	27.3	26.9
4-5	5.9	5.5	6.7	7.6	7.4	8.6	34.2	33.8	35.3	34.9	34.7	35.5
5-6	8.7	8.7	5.5	6.5	7.9	7.2	42.9	42.5	40.8	41.3	42.6	42.7
6-7	10.5	10.4	12.7	12.5	11.6	10.9	53.4	52.9	53.5	53.8	54.2	53.6
7-8	9.4	9.7	8.3	7.9	7.2	7.7	62.8	62.5	61.8	61.7	61.3	61.3
8-9	6.8	6.9	6.7	7.2	7.4	6.5	69.6	69.4	68.4	68.8	68.8	67.7
9-10	7.3	8.1	10.1	9.2	8.8	10.7	76.9	77.5	78.6	78.1	77.5	78.4
10-11	7.8	7.4	6.9	6.9	7.9	7.4	84.7	84.8	85.5	85.0	85.4	85.8
11-12	6.6	6.7	6.9	7.4	7.6	7.0	91.3	91.5	92.4	92.4	93.1	92.8
12-13	4.1	3.9	3.0	3.2	2.8	3.9	95.4	95.4	95.4	95.6	95.8	96.8
13-14	3.0	3.0	3.0	3.2	3.2	2.8	98.4	98.4	98.4	98.8	99.1	99.5
14-15	1.1	0.9	1.2	0.7	0.5	0.5	99.5	99.3	99.5	99.5	99.5	100.0
15-16		0.5		0.5	0.5		99.5	99.8	99.5	100.0	100.0	
16-17	0.2		0.5				99.8	99.8	100.0			
17-18							99.8	99.8				
18-19		0.2					99.6	100.0				
19-20	0.2						100.0					
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Feb.

Total No. Hours of Data: 535

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (w/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	0.6	0	0.2	0	0	0	0.6	0	0.2	0	0	0
1-2	3.6	3.6	2.8	2.8	2.1	1.5	4.1	3.6	3.0	2.8	2.1	1.5
2-3	5.6	6.0	5.6	5.1	5.1	5.3	9.7	3.6	8.6	7.9	7.2	6.8
3-4	7.5	6.2	7.7	8.3	8.5	8.7	17.2	15.7	16.3	16.2	15.6	15.5
4-5	8.8	10.1	8.8	8.3	7.9	7.9	26.0	25.8	25.1	24.4	23.5	23.4
5-6	7.7	8.8	9.8	10.0	10.7	10.8	33.6	34.6	34.9	34.4	34.3	34.2
6-7	8.6	7.5	8.1	8.5	9.2	10.4	42.2	42.1	43.0	42.9	43.5	44.5
7-8	6.0	6.7	5.8	6.8	6.0	5.5	48.2	48.9	48.8	49.6	49.5	50.0
8-9	9.5	8.6	9.9	8.8	8.3	7.4	57.8	57.5	58.7	58.5	57.8	57.4
9-10	9.5	9.9	9.2	8.6	10.2	11.7	67.3	67.4	67.9	67.1	68.0	69.1
10-11	10.3	10.3	10.3	10.5	9.4	9.2	77.6	77.7	78.2	77.6	77.4	78.3
11-12	8.4	8.2	8.6	9.6	10.9	9.4	86.0	86.0	86.9	87.2	88.3	87.7
12-13	6.4	6.6	5.4	5.6	4.9	5.1	92.3	92.5	92.3	92.9	93.2	92.8
13-14	3.2	3.7	4.5	3.8	3.2	4.0	95.5	96.3	96.8	96.6	96.4	96.8
14-15	2.4	1.9	1.5	1.7	2.3	2.3	97.9	98.1	98.3	98.3	98.7	99.1
15-16	1.3	1.7	1.7	1.7	1.3	0.9	99.3	99.8	100.0	100.0	100.0	100.0
16-17	0.7	0.2					100.0	100.0				
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							A1-2					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Lower: 301

Month: Mar.

Total No. Hours of Data: 457

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	10.3	9.1	8.2	6.7	4.9	4.7	10.3	9.1	8.2	6.7	4.9	4.7
1-2	8.8	7.5	8.0	8.0	6.7	6.3	19.0	16.6	16.2	14.7	11.6	10.9
2-3	7.4	9.1	8.2	7.6	9.6	8.9	26.5	25.7	24.4	22.3	21.2	19.9
3-4	5.7	5.1	5.6	7.8	7.8	7.2	32.2	30.8	30.0	30.1	29.1	27.0
4-5	5.3	6.0	6.2	5.6	5.8	8.1	37.4	36.8	36.2	35.6	34.8	35.1
5-6	6.3	7.1	8.4	9.6	10.5	9.2	43.8	43.9	44.7	45.2	45.3	44.2
6-7	10.5	11.3	11.8	12.0	12.9	14.3	54.3	55.2	56.4	57.2	58.2	58.6
7-8	10.5	8.9	9.8	9.8	9.4	10.5	64.8	64.1	66.2	67.0	67.6	69.1
8-9	10.5	12.2	11.1	11.1	11.8	10.5	75.3	76.3	77.3	78.2	79.4	79.6
9-10	7.9	7.1	7.3	6.9	7.4	7.8	83.2	83.4	84.7	85.1	86.8	87.4
10-11	4.6	4.4	3.6	3.8	2.9	2.9	87.7	87.8	88.2	88.9	89.7	90.3
11-12	3.1	3.8	4.0	4.0	3.3	2.9	90.8	91.6	92.2	92.9	93.1	93.2
12-13	2.2	1.8	1.6	1.3	1.1	1.3	93.0	93.3	93.8	94.2	94.2	94.6
13-14	1.3	2.0	1.3	1.1	1.6	1.3	94.3	95.3	95.1	95.3	95.7	95.9
14-15	1.5	1.8	2.2	2.2	1.6	1.1	95.8	97.1	97.3	97.6	97.3	97.0
15-16	1.3	0.9	0.9	0.7	0.9	1.1	97.2	98.0	98.2	98.2	98.2	98.2
16-17	1.1	0.4	0.7	0.4	0.2	0.2	98.2	98.4	98.9	98.7	98.4	98.4
17-18	0.9	1.1	0.4	0.4	1.6	1.6	99.1	99.6	99.3	99.1	100.0	100.0
18-19	0.9	0.4	0.7	0.9			100.0	100.0	100.0	100.0		
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							A1-3					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Power: 301

Month: Apr.

Total No. Hours of Data: 651

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	0.2	0	0	0	0	0	0.2	0	0	0	0	0
1-2	1.8	1.7	1.4	1.5	1.7	1.5	2.0	1.7	1.4	1.5	1.7	1.5
2-3	1.8	2.2	2.8	2.8	2.0	2.0	3.8	3.8	4.1	4.3	3.8	3.5
3-4	2.3	2.2	1.8	1.8	2.2	2.5	6.1	6.0	6.0	6.1	6.0	6.0
4-5	4.0	4.1	4.3	4.1	4.0	3.5	10.1	10.1	10.3	10.3	10.0	9.5
5-6	4.5	4.1	3.4	2.6	3.2	3.1	14.6	14.3	13.7	12.9	13.2	12.6
6-7	6.0	5.8	5.6	6.6	5.8	5.4	20.6	20.1	19.5	19.5	19.0	18.0
7-8	4.5	5.4	5.5	5.7	6.1	6.6	25.0	25.5	25.0	25.2	25.2	24.6
8-9	8.0	6.8	7.5	6.9	7.1	7.5	33.0	32.3	32.6	32.1	32.3	32.1
9-10	8.6	9.4	8.8	8.6	9.4	9.4	41.6	41.6	41.3	40.7	41.6	41.5
10-11	8.9	8.4	8.9	8.6	7.7	7.5	50.5	50.1	50.2	49.3	49.3	49.0
11-12	8.6	9.7	10.0	10.9	11.2	11.4	59.1	59.8	60.2	60.2	60.5	60.4
12-13	11.2	11.2	10.4	10.6	10.0	9.8	70.4	71.0	70.7	70.8	70.5	70.2
13-14	6.9	6.0	6.5	7.1	7.5	8.8	77.3	77.0	77.1	77.9	78.0	79.0
14-15	4.9	5.7	6.0	5.5	5.5	4.8	82.2	82.6	83.1	83.4	83.6	83.7
15-16	2.6	2.6	1.7	1.7	1.8	1.8	84.8	85.3	84.8	85.1	85.4	85.6
16-17	1.7	1.8	2.3	2.0	1.5	1.4	86.5	87.1	87.1	87.1	86.9	86.9
17-18	0.8	0.3	0.3	0.3	0.3	0.3	87.3	87.4	87.4	87.4	87.3	87.3
18-19	0.2	0.2	0	0.2	0.2	0.3	87.4	87.6	87.4	87.6	87.4	87.6
19-20	0	0	0.3	0	0.3	0.3	87.4	87.6	87.7	87.6	87.7	87.9
20-21	0.3	0	0	0.2	0.2	0.2	87.7	87.6	87.7	87.7	87.9	88.0
21-22	4.5	4.8	4.9	5.4	5.4	5.5	92.3	92.4	92.6	93.1	93.2	93.5
22-23	7.5	7.2	6.9	6.5	6.3	6.1	99.7	99.6	99.5	99.5	99.5	99.7
23-24	0	0	0	0.2	0.2	0.2	99.7	99.6	99.5	99.7	99.7	99.8
24-25	0	0.2	0.2	0.2	0.3	0.2	99.7	99.7	99.7	99.8	100.0	100.0
> 25	0.3	0.3	0.3	0.2			100.0	100.0	100.0	100.0		

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: May

Total No. Hours of Data: 533

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	1.1	1.1	0.8	0.9	0.8	0.8	1.1	1.1	0.8	0.9	0.8	0.8
1-2	4.3	3.6	3.4	2.5	2.5	2.1	5.4	4.7	4.2	3.4	3.2	2.9
2-3	2.1	3.2	3.8	3.6	3.4	3.6	7.5	7.9	7.9	7.0	6.6	6.5
3-4	2.1	1.9	1.3	2.7	2.7	3.0	9.6	9.8	9.3	9.7	9.3	9.5
4-5	2.1	1.7	2.6	2.5	2.7	2.9	11.6	11.5	11.9	12.1	12.0	12.4
5-6	2.6	3.0	2.6	3.2	3.0	3.0	14.3	14.5	14.6	15.3	15.0	15.4
6-7	3.9	3.2	4.0	2.3	2.8	2.5	18.2	17.7	18.5	17.6	17.8	17.9
7-8	6.0	6.2	4.2	5.3	5.1	3.8	24.2	24.0	22.7	22.9	23.0	21.7
8-9	10.1	10.4	10.0	9.8	9.7	11.4	34.3	34.3	32.7	32.8	32.6	33.1
9-10	15.9	14.9	16.6	16.3	16.5	16.5	50.3	49.2	49.3	49.1	49.1	49.6
10-11	16.5	16.8	16.8	17.8	18.0	18.3	66.8	66.0	66.2	66.9	67.2	67.9
11-12	11.3	12.8	12.3	12.5	13.5	13.1	78.0	79.9	78.4	79.4	80.6	81.0
12-13	9.2	8.9	9.6	8.1	7.6	7.4	87.2	87.7	88.1	87.5	88.2	88.4
13-14	4.5	4.7	4.7	5.5	4.7	4.9	91.7	92.5	92.8	93.0	93.0	93.3
14-15	3.4	2.8	2.5	2.3	2.3	1.9	95.1	95.3	95.3	93.5	95.3	95.2
15-16	1.7	1.7	1.5	1.7	1.7	1.9	96.8	97.0	96.8	97.0	97.0	97.1
16-17	1.3	1.3	1.5	1.3	1.3	1.3	98.1	98.3	98.3	98.3	98.3	98.5
17-18	1.3	1.1	1.1	1.1	1.1	1.1	99.4	99.4	99.4	99.4	99.4	99.6
18-19	0.6	0.6	0.6	0.6	0.6	0.4	100.0	100.0	100.0	100.0	100.0	100.0
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							A1-5					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301
Month: June
Total No. Hours of Data: 462

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	0.2	0.2	0	0	0	0	0.2	0.2	0	0	0	0
1-2	4.5	4.8	5.0	4.2	3.7	2.4	4.8	5.0	5.0	4.2	3.7	2.4
2-3	3.7	2.4	2.8	3.7	4.6	5.5	8.4	7.4	7.9	7.9	8.3	7.9
3-4	6.7	7.0	6.1	5.9	4.6	5.5	15.2	14.4	14.0	13.8	12.9	13.4
4-5	7.4	6.8	7.6	7.4	7.9	7.5	22.5	21.1	21.6	21.2	20.8	20.9
5-6	6.7	7.8	7.0	7.4	8.6	9.0	29.2	29.0	28.6	28.7	29.4	29.9
6-7	8.7	7.6	8.3	8.1	6.8	5.9	37.9	36.6	36.9	36.8	36.2	35.8
7-8	8.7	9.8	9.6	9.4	10.1	10.5	46.5	46.4	46.5	46.2	46.3	46.4
8-9	13.9	13.9	14.0	15.1	15.4	16.3	60.4	60.3	60.5	61.3	61.6	62.6
9-10	12.6	12.4	11.6	11.8	11.4	11.9	72.9	72.8	72.1	73.1	73.0	74.5
10-11	12.1	12.9	13.5	12.7	13.2	12.3	85.1	85.6	85.6	85.8	86.2	86.8
11-12	8.2	8.1	7.9	7.9	8.3	7.7	93.3	93.7	93.4	93.7	94.5	94.5
12-13	5.2	4.8	5.7	5.3	4.4	4.6	98.5	98.5	99.1	98.9	98.9	99.1
13-14	1.5	1.5	0.9	1.1	1.1	0.9	100.0	100.0	100.0	100.0	100.0	100.0
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: July

Total No. Hours of Data: 705

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	3.5	2.1	1.6	1.0	0.7	0.6	3.5	2.1	1.6	1.0	0.7	0.6
1-2	6.8	8.4	7.8	8.0	7.2	6.7	10.4	10.5	9.4	9.0	7.9	7.3
2-3	8.4	9.1	9.3	8.3	9.2	8.9	18.7	19.7	18.7	17.3	17.0	16.2
3-4	9.9	8.0	9.0	9.7	10.6	10.2	28.7	27.6	27.7	27.0	27.6	26.4
4-5	12.6	14.0	14.8	14.7	14.6	16.6	41.3	41.6	42.5	41.7	42.2	43.0
5-6	12.2	12.8	12.1	13.1	14.0	14.8	53.5	54.4	54.6	54.9	56.2	57.7
6-7	13.2	12.8	12.4	13.3	12.0	10.6	66.7	67.2	67.0	68.1	68.2	68.3
7-8	8.7	9.1	10.0	9.4	9.7	10.6	75.3	76.4	77.0	77.6	78.0	78.9
8-9	9.1	9.0	8.6	8.4	8.7	8.6	84.4	85.3	85.6	86.0	86.7	87.5
9-10	9.2	8.3	8.1	7.7	7.3	6.4	93.6	93.6	93.7	93.7	94.0	94.0
10-11	3.5	3.8	3.4	3.4	3.3	3.3	97.2	97.4	97.1	97.1	97.3	97.3
11-12	1.7	1.4	2.0	2.0	2.1	2.0	98.9	98.9	99.1	99.1	99.4	99.3
12-13	1.1	1.1	0.9	0.9	0.6	0.7	100.0	100.0	100.0	100.0	100.0	100.0
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							A1-7					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Aug.

Total No. Hours of Data: 355

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	7.9	5.6	4.2	3.7	2.6	2.0	7.9	5.6	4.2	3.7	2.6	2.0
1-2	12.1	13.3	14.4	13.4	14.2	13.7	20.0	18.9	18.7	17.0	16.8	15.7
2-3	13.8	12.1	13.3	13.9	13.4	14.6	33.8	31.1	32.0	31.0	30.2	30.3
3-4	10.4	14.1	13.0	13.1	13.7	13.1	44.2	45.2	45.0	44.0	43.9	43.4
4-5	10.1	10.5	10.8	12.2	12.5	12.9	54.4	55.6	55.8	56.3	56.4	56.3
5-6	11.8	10.5	11.6	12.5	11.4	12.0	66.2	66.1	67.4	68.8	67.8	68.3
6-7	8.7	10.5	7.6	7.4	8.5	8.6	74.9	76.6	75.1	76.1	76.4	76.9
7-8	7.9	6.8	8.5	9.4	9.1	9.4	82.8	83.3	83.6	85.5	85.5	86.3
8-9	5.6	5.9	5.7	3.4	3.7	2.9	88.5	89.3	89.2	88.9	89.2	89.1
9-10	2.3	1.7	1.7	2.6	2.3	2.9	90.7	91.0	90.9	91.5	91.5	92.0
10-11	4.2	4.5	4.2	3.4	2.8	3.7	94.9	95.5	95.2	94.9	94.3	95.7
11-12	2.0	1.7	1.7	2.3	2.6	1.4	96.9	97.2	96.9	97.2	96.9	97.1
12-13	2.8	2.3	3.1	2.8	3.1	2.9	99.7	99.4	100.0	100.0	100.0	100.0
13-14	0.3	0.6					100.0	100.0				
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							A1-8					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Sept

Total No. Hours of Data: 272

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	5.5	3.1	2.4	1.6	1.6	0.8	5.5	3.1	2.4	1.6	1.6	0.8
1-2	8.8	12.9	11.0	11.5	9.5	10.4	14.3	16.0	13.3	13.0	11.1	11.2
2-3	12.9	12.5	14.5	15.8	13.1	18.3	27.2	28.5	27.8	28.9	24.2	29.5
3-4	13.2	12.1	12.2	9.9	12.7	10.8	40.4	40.6	40.0	38.7	36.9	40.2
4-5	13.6	14.5	14.9	14.2	18.3	14.7	54.0	55.1	54.9	53.0	55.2	55.0
5-6	12.9	12.5	11.0	14.2	11.9	12.4	66.9	67.6	65.9	67.2	67.1	67.3
6-7	9.6	9.8	11.4	12.6	12.3	16.7	76.5	77.3	77.3	79.8	79.4	84.1
7-8	11.0	10.9	10.2	9.1	9.1	8.8	87.5	88.3	87.5	88.9	88.5	92.8
8-9	7.7	7.0	8.6	6.3	7.5	6.4	95.2	95.3	96.1	95.3	96.0	99.2
9-10	3.3	2.7	1.6	2.0	1.2	0.8	98.5	98.0	97.6	97.2	97.2	100.0
10-11	0	0.8	0	0.4	0		98.5	98.8	97.6	97.6	97.2	
11-12	0.7	0	1.6	0	2.8		99.3	99.2	99.2	97.6	100.0	
12-13	0	0.4	0	2.4			99.3	99.2	99.2	100.0		
13-14	0	0.4	0.8				99.3	99.6	100.0			
14-15	0.4	0					99.6	99.6				
15-16	0.4	0.4					100.0	100.0				
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

A1-9

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Oct.

Total No. Hours of Data: 452

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	4.0	3.3	2.7	2.7	1.6	0.5	4.0	3.3	2.7	2.7	1.6	0.5
1-2	7.3	7.4	6.7	6.1	7.0	8.3	11.3	10.7	9.4	8.7	8.5	8.8
2-3	3.3	3.6	6.7	6.5	5.6	5.2	14.6	14.3	16.1	15.2	14.2	14.0
3-4	4.9	6.0	4.0	5.2	7.4	8.1	19.5	20.3	20.1	20.4	21.6	22.1
4-5	6.6	5.6	6.0	6.3	4.7	5.4	26.1	25.9	26.2	26.7	26.3	27.5
5-6	11.1	10.5	10.1	9.0	9.2	8.8	37.2	36.4	36.2	35.7	35.5	36.3
6-7	12.8	13.4	15.7	16.1	16.4	16.2	50.0	49.8	51.9	51.8	51.9	52.5
7-8	14.4	13.4	11.4	11.9	11.9	11.5	64.4	63.2	63.3	63.7	63.8	64.0
8-9	12.2	15.0	16.1	15.9	16.2	16.0	76.5	78.1	79.4	79.6	80.0	80.0
9-10	13.7	11.8	11.6	11.4	11.2	11.7	90.3	90.0	91.1	91.0	91.2	91.7
10-11	4.9	4.9	4.5	4.0	4.0	3.6	95.1	94.4	95.5	95.1	95.3	95.3
11-12	2.0	2.0	1.3	1.6	1.3	1.1	97.1	96.9	96.9	96.6	96.6	96.4
12-13	0.9	1.3	1.1	1.1	1.6	1.8	98.0	98.2	98.0	97.8	98.2	98.2
13-14	1.3	1.1	1.6	1.8	1.6	1.8	99.3	99.3	99.6	99.6	99.8	100.0
14-15	0.4	0.2	0.2	0.4	0.2		99.8	99.6	99.8	100.0	100.0	
15-16	0.2	0.4	0.2				100.0	100.0	100.0			
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25							100.0					

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Nov.

Total No. Hours of Data: 293

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	2.4	1.1	0.4	0.4	0.4	0.4	2.4	1.1	0.4	0.4	0.4	0.4
1-2	2.0	2.5	2.5	4.3	1.4	0	4.4	3.5	2.8	4.7	1.8	0.4
2-3	5.8	7.1	7.1	3.2	5.4	9.0	10.2	10.6	10.0	7.9	7.2	9.4
3-4	8.2	9.2	8.9	10.8	10.1	7.6	18.4	19.8	18.9	18.6	17.3	17.0
4-5	8.2	9.6	8.2	9.0	8.6	10.1	26.6	29.4	27.0	27.6	25.9	27.1
5-6	10.9	10.3	11.4	11.5	12.9	9.7	37.5	39.7	38.4	39.1	38.8	36.8
6-7	7.8	7.4	8.9	10.0	10.4	12.6	45.4	47.2	47.3	49.1	49.3	49.5
7-8	8.2	6.7	5.7	4.3	4.0	4.3	53.6	53.9	53.0	53.4	53.2	53.8
8-9	4.1	4.6	3.9	5.7	2.2	1.8	57.7	58.5	56.9	59.1	55.4	55.6
9-10	8.5	7.4	8.9	6.8	7.2	8.7	66.2	66.0	65.8	65.9	62.6	64.3
10-11	5.1	4.6	5.3	3.6	4.3	4.7	71.3	70.6	71.2	69.5	66.9	69.0
11-12	4.8	5.0	3.2	4.7	3.2	3.2	76.1	75.5	74.4	74.2	70.1	72.2
12-13	4.8	6.4	5.0	2.9	4.7	2.9	80.9	81.9	79.4	77.1	74.8	75.1
13-14	4.1	1.8	2.5	5.4	5.4	5.4	85.0	83.7	81.9	82.4	80.2	80.5
14-15	3.4	3.5	6.4	5.4	5.0	3.6	88.4	87.2	88.3	87.8	85.3	84.1
15-16	3.4	5.7	6.4	6.8	10.8	6.1	91.8	92.9	94.7	94.6	96.0	90.3
16-17	3.1	2.8	1.8	2.2	0.7	6.9	94.9	95.7	96.4	96.8	96.8	97.1
17-18	2.4	1.1	1.1	0.7	1.4	1.1	97.3	96.8	97.5	97.5	98.2	98.2
18-19	1.0	0.7	1.4	1.4	1.1	1.4	98.3	97.5	98.9	98.9	99.3	99.6
19-20	0	1.8	0.7	0.7	0.7	0.4	98.3	99.3	99.6	99.6	100.0	100.0
20-21	1.4	0.8	0.4	0.4			98.7	100.0	100.0	100.0		
21-22	0						99.7					
22-23	0						99.7					
23-24	0.3						100.0					
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: Dec.

Total No. Hours of Data: 199

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	5.0	3.5	1.5	2.6	3.6	0	5.0	3.5	1.5	2.6	3.6	0
1-2	8.5	8.6	10.2	8.7	11.3	12.8	13.6	12.1	11.7	11.2	14.9	12.8
2-3	4.5	7.1	7.1	6.6	5.6	5.3	18.1	19.2	18.8	17.9	20.5	18.1
3-4	12.6	11.6	12.7	11.7	13.3	13.8	30.7	30.8	31.5	29.6	33.8	31.9
4-5	13.6	13.6	12.2	15.3	13.3	13.3	44.2	44.4	43.7	44.9	47.2	45.2
5-6	7.5	7.6	8.6	6.6	6.2	5.9	51.8	52.0	52.3	51.5	53.3	51.1
6-7	3.5	5.1	5.1	6.6	6.7	8.0	55.3	57.1	57.4	58.2	60.0	59.0
7-8	9.5	5.6	6.1	6.1	7.2	7.4	64.8	62.6	63.5	64.3	67.2	66.5
8-9	6.5	8.6	6.1	6.1	6.7	5.3	71.4	71.2	69.5	70.4	73.8	71.8
9-10	8.5	10.1	11.2	11.7	10.3	11.7	79.9	81.3	80.7	82.1	84.1	83.5
10-11	12.1	9.6	12.2	9.7	12.8	13.3	92.0	90.9	92.9	91.8	96.9	96.8
11-12	5.0	3.5	4.6	6.1	1.5	1.1	97.0	94.4	97.5	98.0	98.5	97.9
12-13	2.0	4.0	2.0	1.0	1.5	2.1	99.0	98.5	99.5	99.0	100.0	100.0
13-14	0.5	1.0	0.5	1.0			99.5	99.5	100.0	100.0		
14-15	0	0.5					99.5	100.0				
15-16	0.5						100.0					
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 301

Month: All

Total No. Hours of Data: 5352

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	3.2	2.3	1.8	1.5	1.1	0.8	3.2	2.3	1.8	1.5	1.1	0.8
1-2	6.2	6.5	6.2	6.0	5.7	5.4	9.4	8.8	8.0	7.5	6.8	6.2
2-3	6.1	6.5	7.2	6.7	6.9	7.3	15.5	15.3	15.2	14.2	13.7	13.6
3-4	6.8	6.8	6.7	7.3	7.8	7.6	22.3	22.1	21.9	21.5	21.4	21.2
4-5	7.7	8.0	8.2	8.4	8.3	8.8	30.0	30.0	30.1	29.9	29.8	30.0
5-6	8.3	8.4	8.1	8.5	8.9	8.7	38.3	38.5	38.2	38.4	38.7	38.7
6-7	8.9	8.8	9.4	9.6	9.5	9.7	47.2	47.3	47.6	48.0	48.2	48.4
7-8	8.4	8.2	7.9	8.0	8.0	8.1	55.6	55.5	55.5	56.0	56.2	56.5
8-9	9.0	9.3	9.4	9.1	9.1	8.9	64.6	64.8	64.9	65.1	65.3	65.5
9-10	9.4	9.1	9.3	9.0	9.1	9.5	74.1	73.9	74.2	74.1	74.4	75.0
10-11	7.7	7.7	7.7	7.5	7.4	7.3	81.8	81.7	81.9	81.6	81.8	82.3
11-12	5.5	5.7	5.8	6.2	6.4	5.8	87.3	87.4	87.7	87.8	88.2	88.2
12-13	4.6	4.7	4.4	4.2	3.9	4.0	91.9	92.1	92.1	92.0	92.1	92.1
13-14	2.5	2.4	2.5	2.7	2.6	2.8	94.4	94.5	94.6	94.8	94.7	95.0
14-15	1.5	1.6	1.8	1.6	1.6	1.3	96.1	96.2	96.4	96.4	96.3	96.3
15-16	1.0	1.1	1.0	1.0	1.2	0.9	97.0	97.3	97.3	97.4	97.5	97.3
16-17	0.7	0.6	0.6	0.5	0.4	0.7	97.7	97.9	98.0	97.8	97.9	97.9
17-18	0.4	0.3	0.2	0.2	0.4	0.3	98.2	98.2	98.2	98.2	98.3	98.3
18-19	0.2	0.2	0.2	0.2	0.1	0.2	98.4	98.3	98.4	98.4	98.4	98.4
19-20	0.02	0.9	0.1	0.04	0.1	0.1	98.4	98.4	98.5	98.4	98.5	98.5
20-21	0.1	0.4	0.02	0.04	0.02	0.02	98.5	98.5	98.5	98.5	98.5	98.5
21-22	0.5	0.6	0.6	0.7	0.7	0.7	99.0	99.1	99.1	99.1	99.2	99.2
22-23	0.9	0.9	0.9	0.8	0.8	0.8	99.9	99.9	99.9	99.9	99.9	99.96
23-24	0.02	0	0	0.02	0.02	0.02	99.96	99.9	99.9	99.96	99.96	99.98
24-25	0	0.02	0.02	0.02	0.04	0.02	99.96	99.96	99.96	99.98	100.0	100.0
≥ 25	0.04	0.04	0.04	0.02	A1-13		100.0	100.0	100.0	100.0		

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Jan.

Total No. Hours of Data: 375

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	8.0	6.2	5.4	4.9	3.8	2.4	8.0	6.2	5.4	4.9	3.8	2.4
1-2	7.5	9.4	9.7	10.5	11.1	11.9	15.5	15.5	15.1	15.4	14.9	14.4
2-3	13.9	13.1	13.2	12.4	13.2	13.8	29.3	28.7	28.2	27.8	28.1	28.2
3-4	12.8	13.4	14.2	12.1	12.2	12.2	42.1	42.1	42.5	39.9	40.3	40.4
4-5	9.1	9.4	8.6	11.1	9.7	9.5	51.2	51.5	51.1	50.9	50.0	49.9
5-6	8.0	7.2	7.5	7.8	6.5	6.2	59.2	58.7	58.6	58.8	56.5	56.1
6-7	9.1	9.4	9.7	8.6	10.8	11.4	68.3	68.1	68.3	67.4	67.3	67.5
7-8	9.3	8.8	8.1	9.2	8.9	8.4	77.6	76.9	76.3	76.5	76.2	75.9
8-9	6.7	6.7	7.8	8.9	9.2	9.2	84.3	83.6	84.1	85.4	85.4	85.1
9-10	6.9	8.8	9.4	8.6	8.6	9.2	91.2	92.5	93.5	94.1	94.1	94.3
10-11	6.1	5.1	5.1	5.4	5.7	5.7	97.3	97.6	98.7	99.5	99.7	100.0
11-12	1.9	2.1	1.1	0.5	0.3		99.2	99.7	99.7	100.0	100.0	
12-13	0.8	0.3	0.3				100.0	100.0	100.0			
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Feb.

Total No. Hours of Data: 226

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	8.0	4.4	2.7	3.1	2.7	0.9	8.0	4.4	2.7	3.1	2.7	0.9
1-2	18.1	21.3	21.9	19.3	20.3	22.6	26.1	25.8	24.6	22.4	23.0	23.5
2-3	25.7	25.8	27.7	29.1	27.9	26.7	51.8	51.6	52.2	51.6	50.9	50.2
3-4	13.3	13.8	13.8	14.8	17.1	19.0	65.0	65.3	66.1	66.4	68.0	69.2
4-5	13.7	14.2	13.8	16.6	15.8	15.8	78.8	79.6	79.9	83.0	83.8	85.1
5-6	9.3	9.8	11.6	9.0	9.9	9.0	88.1	89.3	91.5	91.9	93.7	94.1
6-7	5.3	5.3	4.0	4.0	2.7	2.7	93.4	94.7	95.5	96.0	96.4	96.8
7-8	3.1	2.7	1.3	1.3	0.9	0.5	96.5	97.3	96.9	97.3	97.3	97.3
8-9	1.8	1.8	2.2	2.2	2.7	2.7	98.2	99.1	99.1	99.6	100.0	100.0
9-10	1.8	0.9	0.9	0.4			100.0	100.0	100.0	100.0		
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Mar.

Total No. Hours of Data: 272

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	2.6	1.1	0.4	0.4	0	0	2.6	1.1	0.4	0.4	0	0
1-2	3.7	5.5	5.2	2.6	3.4	1.5	6.3	6.6	5.6	3.0	3.4	1.5
2-3	19.5	17.7	17.1	19.8	20.2	22.6	25.7	24.4	22.7	22.8	23.6	24.1
3-4	18.8	19.9	21.6	21.3	20.2	18.4	44.5	44.3	44.2	44.0	43.8	42.5
4-5	14.3	13.7	14.5	14.2	15.0	17.3	58.8	57.9	56.7	58.2	58.8	59.8
5-6	13.2	14.4	13.0	12.3	10.9	10.2	72.1	72.3	71.7	70.5	69.7	69.9
6-7	10.3	10.0	10.0	11.2	13.5	12.8	82.4	82.3	81.8	81.7	83.1	82.7
7-8	4.8	6.6	7.4	7.8	6.7	7.9	87.1	88.9	89.2	89.6	89.9	90.6
8-9	6.3	4.4	4.1	4.1	5.2	5.3	93.4	93.4	93.3	93.7	95.1	95.9
9-10	5.9	6.3	6.7	6.3	4.9	4.1	99.3	99.6	100.0	100.0	100.0	100.0
10-11	0.7	0.4					100.0	100.0				
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: April

Total No. Hours of Data: No data available

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1												
1-2												
2-3												
3-4												
4-5												
5-6												
6-7												
7-8												
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING PERIODS

Power: 300

Month: May

Total No. Hours of Data: No data available

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1												
1-2												
2-3												
3-4												
4-5												
5-6												
6-7												
7-8												
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: June

Total No. Hours of Data: 134

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (in/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	2.2	1.5	0.8	0	0	0	2.2	1.5	0.8	0	0	0
1-2	6.7	8.2	7.5	6.9	6.2	5.4	9.0	9.7	8.3	6.9	6.2	5.4
2-3	23.1	22.4	24.1	23.7	26.2	27.1	32.1	32.1	32.3	30.5	32.3	32.6
3-4	32.1	31.3	31.6	32.8	31.5	31.8	64.2	63.4	63.9	63.4	63.8	64.3
4-5	18.7	18.7	19.5	18.3	21.5	21.7	82.8	82.1	83.5	81.7	85.4	86.0
5-6	13.4	16.4	15.0	16.8	13.8	13.2	96.3	98.5	98.5	98.5	99.2	99.2
6-7	3.7	1.5	1.5	1.5	0.8	0.8	100.0	100.0	100.0	100.0	100.0	100.0
7-8												
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: July

Total No. Hours of Data: 712

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	6.3	5.2	4.0	3.3	2.8	2.7	6.3	5.2	4.0	3.3	2.8	2.7
1-2	16.9	17.8	17.1	16.7	16.0	15.6	23.2	23.0	21.0	19.9	18.8	18.3
2-3	34.7	35.5	39.3	40.6	43.3	43.4	57.9	58.5	60.3	60.5	62.2	61.7
3-4	26.7	27.4	26.4	26.7	25.5	26.5	84.6	85.9	86.7	87.3	87.7	88.2
4-5	9.6	8.6	8.1	7.2	6.9	6.5	94.1	94.5	94.8	94.5	94.6	94.6
5-6	3.9	3.5	3.0	3.5	3.7	3.8	98.0	98.0	97.7	98.0	98.3	98.4
6-7	1.7	1.7	2.3	2.0	1.7	1.6	99.7	99.7	100.0	100.0	100.0	100.0
7-8	0.3	0.3					100.0	100.0				
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Aug.

Total No. Hours of Data: 355

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	7.6	7.1	5.4	4.8	4.0	2.3	7.6	7.1	5.4	4.8	4.0	2.3
1-2	27.6	27.7	28.0	27.6	27.4	28.9	35.2	34.7	33.4	32.4	31.3	31.1
2-3	31.0	32.2	33.4	33.8	35.9	36.0	66.2	66.9	66.9	66.2	67.2	67.1
3-4	18.0	17.2	17.8	19.9	19.9	20.6	84.2	84.2	84.7	86.1	87.2	87.7
4-5	5.9	7.1	6.5	5.4	4.3	3.7	90.1	91.2	91.2	91.5	91.5	91.4
5-6	5.1	4.5	4.2	4.5	5.1	4.9	95.2	95.8	95.5	96.0	96.6	96.3
6-7	4.5	4.0	4.5	4.0	3.4	3.7	99.7	99.7	100.0	100.0	100.0	100.0
7-8	0.3	0.3					100.0	100.0				
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Sept.

Total No. Hours of Data: 270

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	8.5	6.7	3.6	2.8	1.2	0.8	8.5	6.7	3.6	2.8	1.2	0.8
1-2	18.9	20.1	23.7	23.1	24.4	30.1	27.4	26.8	27.3	25.9	25.6	30.9
2-3	28.1	28.7	28.1	30.3	31.2	27.7	55.6	55.5	55.3	56.2	56.8	58.6
3-4	25.2	28.7	28.5	28.3	24.5	29.7	80.7	84.3	83.8	84.5	82.4	88.4
4-5	7.8	5.1	5.1	4.8	7.6	4.8	88.5	89.4	88.9	89.2	90.0	93.2
5-6	6.7	5.5	6.7	8.4	7.2	4.0	95.2	94.9	95.7	97.6	97.2	97.2
6-7	3.3	4.7	4.3	2.4	2.8	2.8	98.5	99.6	100.0	100.0	100.0	100.0
7-8	1.5	0.4					100.0	100.0				
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Oct.

Total No. Hours of Data: 452

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	8.0	6.3	5.1	4.9	4.0	3.8	8.0	6.3	5.1	4.9	4.0	3.8
1-2	8.8	8.3	7.4	7.6	7.9	6.8	16.8	14.5	12.5	12.6	11.9	10.6
2-3	17.5	20.1	22.1	22.2	22.2	23.6	34.3	34.6	34.7	34.8	34.2	34.2
3-4	21.9	22.8	23.3	23.8	24.7	25.7	56.2	57.4	57.9	58.5	58.9	59.9
4-5	17.9	18.8	20.6	19.1	19.8	20.3	74.1	76.1	78.5	77.6	78.7	80.2
5-6	13.3	11.8	9.6	11.2	11.0	9.7	87.4	87.9	88.1	88.8	89.7	89.9
6-7	4.6	4.7	4.7	4.5	3.4	3.2	92.0	92.6	92.8	93.3	93.0	93.0
7-8	2.7	1.8	1.6	1.3	1.6	1.4	94.7	94.4	94.4	94.6	94.6	94.4
8-9	0.7	0.9	0.9	0.9	0.9	1.4	95.4	95.3	95.3	95.5	95.5	95.7
9-10	1.3	1.6	1.6	0.9	0.7	0.7	96.7	96.9	96.9	96.4	96.2	96.4
10-11	1.3	1.1	1.1	1.8	2.0	2.3	98.0	98.0	98.0	98.2	98.2	98.6
11-12	1.1	1.3	1.8	1.8	1.8	1.4	99.1	99.3	99.8	100.0	100.0	100.0
12-13	0.7	0.7	0.2				99.8	100.0	100.0			
13-14	0.2						100.0					
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Nov.

Total No. Hours of Data: 410

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	1.0	1.3	0.5	0.3	0	0	1.0	1.3	0.5	0.3	0	0
1-2	5.1	3.5	3.3	2.8	2.3	1.3	6.1	4.8	3.8	3.1	2.3	1.3
2-3	7.6	10.4	10.2	10.4	9.7	10.5	13.7	15.2	14.0	13.5	12.0	11.8
3-4	12.0	11.4	11.9	11.5	11.0	11.5	25.6	26.6	25.9	24.9	23.0	23.3
4-5	12.9	12.7	13.5	13.5	15.6	14.8	38.5	39.2	39.3	38.4	38.5	38.1
5-6	9.8	9.1	8.9	8.7	8.7	8.2	48.3	48.4	48.2	47.1	47.2	46.3
6-7	8.8	8.1	8.1	8.7	9.7	9.7	57.1	56.5	56.3	55.7	56.9	56.0
7-8	6.6	9.1	8.6	8.9	7.7	7.7	63.7	65.6	65.0	64.6	64.5	63.7
8-9	7.1	6.1	7.1	7.4	7.7	7.4	70.7	71.6	72.1	72.0	72.2	71.1
9-10	10.2	10.9	9.4	8.7	8.2	9.7	81.0	82.5	81.5	80.7	80.4	80.8
10-11	7.3	7.3	7.9	8.9	9.9	9.5	88.3	89.9	89.3	89.6	90.3	90.3
11-12	4.1	1.8	2.8	2.0	1.8	2.3	92.4	91.6	92.1	91.6	92.1	92.6
12-13	2.9	3.0	2.8	3.6	3.3	2.8	95.4	94.7	94.9	95.2	95.4	95.4
13-14	1.7	2.8	2.3	1.8	2.0	2.0	97.1	97.5	97.2	96.9	97.4	97.4
14-15	2.0	1.3	1.3	1.8	1.5	2.0	99.0	98.7	98.5	98.7	99.0	99.4
15-16	0.2	0.8	1.3	1.3	1.0	0.5	99.3	99.5	99.7	100.0	100.0	100.0
16-17	0.5	0.5	0.3				99.8	100.0	100.0			
17-18	0.2						100.0					
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300

Month: Dec.

Total No. Hours of Data: 349

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	2.0	1.4	0.6	0.6	0	0	2.0	1.4	0.6	0.6	0	0
1-2	6.6	7.2	6.6	7.2	8.1	8.1	8.6	8.6	7.2	7.8	8.1	8.1
2-3	11.2	10.6	12.1	10.7	9.6	9.6	19.8	19.3	19.3	18.5	17.7	17.7
3-4	13.8	12.1	13.5	14.5	15.4	15.7	33.5	31.3	32.9	32.9	33.0	33.4
4-5	11.7	12.9	11.2	12.4	11.3	10.8	45.3	44.3	44.1	45.4	44.3	44.2
5-6	7.7	7.8	8.6	6.6	7.8	7.6	53.0	52.0	52.7	52.0	52.2	51.7
6-7	8.3	8.3	8.4	8.7	7.5	8.7	61.3	60.3	61.1	60.7	59.2	60.5
7-8	10.6	11.2	9.5	9.5	10.7	9.6	71.9	71.6	70.6	70.2	70.4	70.1
8-9	8.0	8.0	9.2	9.0	10.1	11.3	79.9	79.6	79.8	79.2	80.6	81.4
9-10	6.3	6.9	7.5	8.4	7.2	6.4	86.2	86.5	87.3	87.6	87.8	87.8
10-11	4.6	5.2	3.5	4.3	3.8	3.5	90.8	91.7	90.8	91.9	91.6	91.3
11-12	2.0	2.0	2.9	1.7	2.3	2.3	92.8	93.7	93.7	93.6	93.9	93.6
12-13	1.7	0.9	0.9	1.2	0.6	1.5	94.6	94.5	94.5	94.8	94.5	95.1
13-14	0.3	0.6	0.9	0.9	1.4	0.9	94.8	95.1	95.4	95.7	95.9	95.9
14-15	1.1	0.9	0.3	0.9	0.9	0.9	96.0	96.0	95.7	96.5	96.8	96.8
15-16	1.7	1.7	2.0	1.4	1.2	1.2	97.7	97.7	97.7	98.0	97.8	98.0
16-17	1.7	1.4	1.7	1.4	1.7	2.0	99.4	99.1	99.4	99.4	99.7	100.0
17-18	0.6	0.9	0.6	0.6	0.3		100.0	100.0	100.0	100.0	100.0	
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

MEAN WIND SPEED PROBABILITY OF OCCURRENCE FOR VARIOUS AVERAGING TIMES

Tower: 300
Month: All
Total No. Hours of Data: 3571

PERCENTAGE OF OCCURRENCE OF WIND
SPEED IN INDICATED RANGE

CUMULATIVE PERCENTAGE (PERCENTAGE OF
OCCURRENCE LESS THAN OR EQUAL TO
WIND SPEED IN INDICATED RANGE)

Wind Speed Range (m/s)	Averaging Period (Hr)						Averaging Period (Hr)					
	1	2	3	4	5	6	1	2	3	4	5	6
0-1	5.6	4.4	3.2	2.8	2.2	1.6	5.6	4.4	3.2	2.8	2.2	1.6
1-2	12.3	13.1	13.0	12.6	12.8	13.1	18.0	17.5	16.2	15.4	14.9	14.7
2-3	21.7	22.5	23.8	24.4	25.2	25.5	39.7	40.0	40.1	39.8	40.1	40.2
3-4	19.3	19.7	20.0	20.3	20.0	20.8	59.0	59.6	60.1	60.1	60.1	61.0
4-5	11.6	11.5	11.5	11.5	11.8	11.5	70.6	71.2	71.6	71.6	71.9	72.4
5-6	8.5	8.1	7.9	8.0	7.7	7.2	79.1	79.3	79.5	79.6	79.6	79.6
6-7	5.8	5.7	5.8	5.6	5.6	5.6	84.9	85.1	85.3	85.2	85.3	85.3
7-8	3.9	4.1	3.6	3.8	3.6	3.5	88.8	89.2	88.9	88.9	88.9	88.8
8-9	3.0	2.8	3.1	3.2	3.5	3.7	91.8	91.9	92.0	92.2	92.5	92.5
9-10	3.3	3.6	3.6	3.3	3.0	3.1	95.1	95.5	95.6	95.5	95.5	95.6
10-11	2.2	2.0	1.9	2.2	2.4	2.3	97.2	97.5	97.5	97.7	97.8	97.9
11-12	1.0	0.8	0.9	0.7	0.7	0.7	98.2	98.3	98.4	98.4	98.5	98.5
12-13	0.7	0.5	0.5	0.5	0.4	0.5	98.9	98.9	98.9	98.9	98.9	99.0
13-14	0.3	0.4	0.3	0.3	0.4	0.3	99.2	99.2	99.2	99.2	99.3	99.3
14-15	0.3	0.2	0.2	0.3	0.3	0.3	99.5	99.5	99.4	99.5	99.6	99.6
15-16	0.2	0.3	0.3	0.3	0.2	0.2	99.7	99.7	99.7	99.8	99.8	99.8
16-17	0.2	0.2	0.2	0.1	0.2	0.2	99.9	99.9	99.9	99.9	99.97	100.0
17-18	0.1	0.1	0.1	0.1	0.03		100.0	100.0	100.0	100.0	100.0	
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301
Month: Dec-Feb

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	23.1	19.2	26.9	7.7	11.5	11.5	30.8	15.4	7.7	7.7	15.4	23.1
1-2	17.5	22.5	18.8	13.8	11.3	16.3	19.0	22.8	19.0	12.7	11.4	15.2
2-3	17.5	18.8	22.5	21.3	11.3	8.8	14.3	19.0	22.6	20.2	13.1	10.7
3-4	12.9	12.9	12.9	28.0	16.1	17.2	14.4	17.8	13.3	24.4	13.3	16.7
4-5	19.0	4.0	14.0	19.0	21.0	23.0	15.2	3.8	18.1	21.0	22.9	19.0
5-6	22.3	8.5	19.1	12.8	19.1	18.1	18.8	13.9	15.8	14.9	16.8	19.8
6-7	12.1	20.2	15.2	14.1	20.2	18.2	16.8	15.8	14.7	14.7	17.9	20.0
7-8	12.9	24.7	19.4	14.0	15.1	14.0	14.6	22.5	15.7	15.7	20.2	11.2
8-9	22.3	18.1	18.1	12.8	8.5	20.2	18.3	23.7	19.4	10.8	6.5	21.5
9-10	12.0	28.0	14.0	20.0	13.0	13.0	15.7	23.1	13.9	18.5	13.9	14.8
10-11	17.0	20.0	17.9	17.0	10.7	17.9	18.1	18.1	19.1	15.2	12.4	17.1
11-12	14.3	13.1	14.3	15.5	23.8	19.0	18.8	12.5	16.3	17.5	17.5	17.5
12-13	21.4	16.1	12.5	17.9	21.4	10.7	21.1	12.3	10.5	19.3	24.6	12.3
13-14	12.9	6.5	25.8	12.9	32.3	9.7	5.7	22.9	20.0	8.6	31.4	11.4
14-15	27.8	27.8	0.0	5.6	11.1	27.8	26.7	20.0	0.0	6.7	20.0	26.7
15-16	12.5	12.5	0.0	0.0	50.0	25.0	18.2	0.0	9.1	27.3	27.3	18.2
16-17	20.0	0.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	100.0	0.0
17-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
19-20	0.0	0.0	0.0	100.0	0.0	0.0						
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Dec-Feb

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	30.0	20.0	0.0	10.0	10.0	30.0	25.0	25.0	0.0	12.5	12.5	25.0
1-2	20.3	26.1	17.4	8.7	11.6	15.9	26.2	23.1	12.3	9.2	12.3	16.9
2-3	15.9	17.0	25.0	17.0	13.6	11.4	12.7	15.2	26.6	17.7	12.7	15.2
3-4	10.9	16.8	16.8	24.8	17.8	12.9	11.8	19.6	24.5	20.6	16.7	6.9
4-5	15.0	4.0	15.0	21.0	21.0	24.0	11.2	4.7	11.2	22.4	21.5	29.0
5-6	18.9	15.8	17.9	14.7	13.7	18.9	20.6	16.5	14.4	15.5	12.4	20.6
6-7	15.7	18.5	11.1	17.6	17.6	19.4	16.1	17.9	15.2	17.9	17.0	16.1
7-8	21.5	19.0	15.2	16.5	19.0	8.9	20.7	20.7	15.9	15.9	17.1	9.8
8-9	16.0	24.5	18.1	11.7	11.7	18.1	17.8	20.0	13.3	13.3	17.8	17.8
9-10	17.5	22.8	14.0	12.3	12.3	21.1	17.9	22.6	17.9	9.4	10.4	21.7
10-11	18.7	14.0	21.5	15.9	18.7	11.2	19.4	14.6	19.4	15.5	20.4	10.7
11-12	21.3	12.5	15.8	20.0	13.8	18.8	21.6	12.5	17.0	19.3	10.2	19.3
12-13	15.2	19.6	13.0	21.7	19.6	10.9	13.0	15.2	10.9	26.1	26.1	8.7
13-14	7.9	21.1	15.8	10.5	34.2	10.5	8.3	27.8	13.9	8.3	30.6	11.1
14-15	30.8	7.7	7.7	7.7	7.7	38.5	33.3	0.0	8.3	8.3	0.0	50.0
15-16	11.1	0.0	0.0	22.2	44.4	22.2	9.1	0.0	18.2	27.3	36.4	9.1
16-17	0.0	0.0	100.0	0.0	0.0	0.0						
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 301
Month: Dec-Feb

Wind Speed Range (m/s)	5-Hr. Averaging Period						6-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-2	27.5	18.8	13.0	10.1	10.1	20.3	22.1	19.1	11.8	13.2	10.3	23.5
2-3	13.6	21.0	21.0	12.3	16.0	16.0	17.3	25.9	21.0	7.4	14.8	13.6
3-4	9.8	18.6	26.5	22.5	14.7	7.8	9.0	17.0	24.0	26.0	15.0	9.0
4-5	9.3	7.2	10.3	19.6	25.8	27.8	15.0	7.0	13.0	18.0	25.0	22.0
5-6	18.9	17.9	13.2	18.9	14.2	17.0	13.6	16.5	14.6	18.4	16.5	20.4
6-7	15.9	15.9	14.2	18.6	17.7	17.7	15.3	13.6	15.3	19.5	18.6	17.8
7-8	26.0	15.6	18.2	14.3	13.0	13.0	27.6	19.7	14.5	14.5	7.9	15.8
8-9	16.9	21.3	13.5	13.5	16.9	18.0	19.5	18.2	14.3	15.6	18.2	14.3
9-10	20.4	22.2	16.7	8.3	13.9	18.5	20.0	22.4	16.8	4.8	16.8	19.2
10-11	19.6	12.7	21.6	16.7	17.6	11.8	19.6	10.3	17.5	20.6	18.6	13.4
11-12	20.2	12.8	17.0	18.1	11.7	20.2	23.2	13.4	19.5	14.6	8.5	20.7
12-13	9.8	22.0	12.2	26.8	26.8	2.4	2.1	22.9	14.6	27.1	27.1	6.3
13-14	9.7	16.1	9.7	12.9	29.0	22.6	12.1	15.2	12.1	18.2	24.2	18.2
14-15	35.7	7.1	7.1	7.1	7.1	35.7	28.6	7.1	14.3	7.1	7.1	35.7
15-16	0.0	0.0	22.2	33.3	33.3	11.1	0.0	0.0	0.0	60.0	40.0	0.0
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301
Month: Mar-May

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	14.6	41.8	14.6	1.8	5.5	21.8	13.6	43.2	6.8	2.3	11.4	22.7
1-2	17.1	27.6	23.7	13.2	9.2	9.2	20.3	35.9	20.3	7.8	7.8	7.8
2-3	21.1	24.6	21.1	17.5	8.8	7.0	24.3	21.4	17.1	17.1	5.7	14.3
3-4	26.4	24.5	17.0	13.2	7.6	11.3	19.6	28.3	23.9	10.9	8.7	8.7
4-5	9.8	19.7	27.9	13.1	13.1	16.4	17.5	9.5	23.8	14.3	15.9	19.1
5-6	20.0	8.6	28.6	12.9	5.7	24.3	16.2	18.9	28.4	9.5	6.8	20.3
6-7	16.2	10.8	19.8	20.7	15.3	17.1	14.3	10.5	22.9	18.1	18.1	16.2
7-8	16.2	10.8	18.9	25.2	17.1	11.7	12.2	12.2	17.8	28.0	15.0	15.0
8-9	9.6	14.0	20.4	26.1	15.9	14.0	12.0	16.5	22.2	21.5	16.5	11.4
9-10	12.4	16.6	16.6	19.2	20.7	14.5	11.7	16.5	16.0	21.3	18.1	16.5
10-11	15.9	18.8	11.8	14.1	23.5	15.9	16.3	15.7	12.1	18.7	23.5	13.9
11-12	16.9	13.1	10.0	13.9	26.2	20.0	22.3	10.8	11.5	12.8	23.0	19.6
12-13	19.1	9.9	12.2	15.3	19.1	24.4	12.5	10.9	10.2	15.6	23.4	27.3
13-14	20.0	18.7	6.7	16.0	18.7	20.0	17.8	16.4	13.7	17.8	16.4	17.8
14-15	29.8	19.3	7.0	12.3	15.8	15.8	28.3	20.0	3.3	11.7	20.0	16.7
15-16	15.6	25.0	18.8	12.5	12.5	15.6	23.3	23.3	20.0	13.3	6.7	13.3
16-17	21.7	13.0	26.1	13.0	13.0	13.0	23.8	23.8	14.3	14.3	14.3	9.5
17-18	35.3	17.7	5.9	11.8	17.7	11.8	30.8	7.7	15.4	0.0	30.8	15.4
18-19	0.0	0.0	14.3	0.0	0.0	85.7	0.0	0.0	16.7	0.0	0.0	83.3
19-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-21	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-22	6.9	17.2	37.9	27.6	10.3	0.0	13.3	16.7	33.3	26.7	6.7	3.3
22-23	18.4	18.4	8.2	8.2	22.5	24.5	18.2	18.2	6.8	11.4	25.0	20.5
23-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
> 25	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Mar-May

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	14.3	48.6	0.0	0.0	14.3	22.9	15.4	42.3	0.0	0.0	11.5	30.8
1-2	23.8	33.3	17.5	6.4	7.9	11.1	19.6	32.1	17.9	8.9	10.7	10.7
2-3	25.7	21.4	17.1	20.0	4.3	11.4	36.1	21.3	13.1	14.8	6.6	8.2
3-4	22.5	25.0	25.0	5.0	10.0	12.5	21.3	27.9	18.0	11.5	6.6	14.8
4-5	15.5	16.9	21.1	12.7	15.5	18.3	10.6	19.7	19.7	9.1	16.7	24.2
5-6	15.7	15.7	24.3	11.4	10.0	22.9	19.7	21.1	22.5	9.9	11.3	15.5
6-7	17.0	13.2	21.7	16.0	19.8	12.3	13.6	10.7	22.3	18.5	19.4	15.5
7-8	7.9	7.9	24.8	27.7	15.8	15.8	5.7	10.5	22.9	28.6	14.3	18.1
8-9	11.5	15.3	23.6	22.3	14.7	12.7	11.8	16.5	27.0	20.4	13.2	11.2
9-10	12.4	19.6	15.0	21.1	19.1	12.9	16.5	16.5	13.3	21.3	20.2	12.2
10-11	14.6	14.0	10.4	21.3	22.0	17.7	13.8	15.6	9.6	22.8	20.4	18.0
11-12	23.7	10.1	14.2	13.5	21.6	16.9	22.6	7.7	15.5	12.9	24.5	16.8
12-13	14.3	11.9	7.1	16.7	24.6	25.4	9.3	11.9	10.2	19.5	24.6	24.6
13-14	15.1	15.1	15.1	15.1	16.4	23.3	18.8	17.5	12.5	15.0	13.8	22.5
14-15	25.8	19.4	4.8	12.9	22.6	14.5	27.6	19.0	5.2	12.1	22.4	13.8
15-16	30.4	17.4	17.4	13.0	4.4	17.4	30.4	13.0	17.4	17.4	0.0	21.7
16-17	23.1	23.1	19.2	11.5	11.5	11.5	18.2	27.3	18.2	9.1	13.6	13.6
17-18	30.0	10.0	10.0	0.0	30.0	20.0	30.0	10.0	10.0	0.0	30.0	20.0
18-19	0.0	0.0	0.0	0.0	20.0	80.0	0.0	16.7	0.0	0.0	33.3	50.0
19-20	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
21-22	13.3	16.7	30.0	26.7	6.7	6.7	10.3	24.1	27.6	27.6	0.0	10.3
22-23	20.5	18.0	7.7	12.8	25.6	15.4	22.2	16.7	8.3	11.1	30.6	11.1
23-24	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
24-25	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
> 25	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0

A2-5

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Mar-May

5-Hr. Averaging Period

6-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	22.2	33.3	0.0	0.0	16.7	27.8	26.7	26.7	0.0	0.0	26.7	20.0
1-2	22.0	32.0	16.0	10.0	8.0	12.0	29.6	22.7	13.6	15.9	4.5	13.6
2-3	36.1	18.0	11.5	11.5	13.1	9.8	33.3	20.0	13.3	8.3	11.7	13.3
3-4	21.7	30.0	16.7	11.7	3.3	16.7	25.0	28.3	13.3	8.3	8.3	16.7
4-5	10.5	25.4	16.4	9.0	17.9	20.9	7.5	26.9	11.9	13.4	20.9	19.4
5-6	18.1	22.2	22.2	8.3	15.3	13.9	18.1	25.0	18.1	8.3	16.7	13.9
6-7	12.0	13.9	22.2	17.6	18.5	15.7	10.9	17.8	23.8	14.9	15.8	16.8
7-8	5.9	11.8	24.5	24.5	14.7	18.6	8.1	10.8	24.3	22.5	16.2	18.0
8-9	12.2	16.7	23.7	22.4	11.5	13.5	11.8	18.3	24.2	24.2	10.5	11.1
9-10	18.4	16.3	14.8	20.4	19.4	10.7	20.2	15.2	16.2	19.2	18.2	11.1
10-11	13.2	11.3	12.6	25.2	20.1	17.6	13.9	10.1	12.0	23.4	22.8	17.7
11-12	20.5	9.6	15.4	13.5	24.4	16.7	15.8	11.2	15.8	17.8	21.7	17.8
12-13	9.1	11.8	10.0	19.1	24.6	25.5	7.3	12.8	13.8	18.4	23.9	23.9
13-14	19.8	12.4	12.4	17.3	17.3	21.0	21.4	11.2	11.2	18.0	19.1	19.1
14-15	25.5	18.2	5.5	10.9	21.8	18.2	26.1	19.6	4.4	8.7	19.6	21.7
15-16	28.0	28.0	4.0	24.0	0.0	16.0	29.6	18.5	11.1	18.5	7.4	14.8
16-17	27.8	11.1	33.3	5.6	5.6	16.7	29.4	5.9	23.5	17.7	5.9	17.7
17-18	16.7	8.3	8.3	0.0	50.0	16.7	9.1	18.2	0.0	0.0	45.5	27.3
18-19	0.0	25.0	0.0	0.0	25.0	50.0	0.0	50.0	0.0	0.0	25.0	25.0
19-20	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
20-21	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
21-22	7.1	28.6	25.0	25.0	0.0	14.3	3.6	28.5	25.0	25.0	3.6	14.3
22-23	24.2	15.2	9.1	15.2	27.3	9.1	30.0	10.0	13.3	16.7	20.0	10.0
23-24	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
24-25	50.0	50.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
> 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301
Month: Jun-Aug

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	16.7	44.4	18.5	3.7	3.7	13.0	13.9	50.0	13.9	2.8	5.6	13.9
1-2	9.8	34.8	30.4	12.5	7.1	5.4	17.2	33.6	27.3	9.4	3.9	8.6
2-3	20.0	19.2	28.8	19.2	5.6	7.2	17.1	23.9	24.8	20.5	8.6	5.1
3-4	17.5	21.2	19.7	30.7	7.3	3.7	22.5	21.7	21.7	23.9	5.1	5.1
4-5	15.6	18.1	25.6	18.8	11.3	10.6	15.7	18.1	25.3	19.9	10.2	10.8
5-6	22.0	13.8	19.5	15.7	17.0	12.0	19.8	17.9	17.9	19.1	13.6	11.7
6-7	17.0	16.4	19.4	16.4	17.6	13.3	14.2	13.6	18.5	13.6	21.0	19.1
7-8	15.3	9.9	13.7	18.3	21.4	21.4	18.8	7.5	15.0	19.6	18.8	20.3
8-9	18.1	10.1	7.4	14.8	22.8	26.9	16.2	10.8	7.4	17.6	23.0	25.0
9-10	11.5	7.6	7.6	16.0	29.0	28.2	10.7	5.0	9.1	18.2	31.4	25.6
10-11	8.3	15.5	6.2	17.5	26.8	25.8	7.8	15.7	6.9	15.7	29.4	24.5
11-12	25.5	12.7	1.8	3.6	25.5	30.9	17.0	15.1	1.9	5.7	30.2	30.2
12-13	23.8	14.3	2.4	0.0	23.8	35.7	36.8	7.9	0.0	0.0	26.3	29.0
13-14	12.5	0.0	12.5	0.0	12.5	62.5	0.0	11.1	11.1	0.0	11.1	66.7
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Jun-Aug

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	11.5	50.0	15.4	0.0	7.7	15.4	10.0	55.0	10.0	0.0	10.0	15.0
1-2	17.2	39.1	22.7	7.8	3.9	9.4	25.0	37.5	18.3	6.7	5.0	7.5
2-3	20.3	23.6	22.8	19.5	6.5	7.3	19.4	22.6	26.6	14.5	6.5	10.5
3-4	23.4	21.2	22.6	21.9	5.1	5.8	23.9	24.6	23.2	17.4	3.6	7.3
4-5	18.2	18.2	25.0	22.7	8.0	8.0	18.0	19.1	19.7	23.6	6.7	12.9
5-6	17.3	16.0	18.0	14.7	17.3	16.7	13.8	16.2	22.2	18.6	17.4	12.0
6-7	13.3	15.2	17.9	12.6	20.5	20.5	15.8	14.5	16.5	11.2	18.4	23.7
7-8	19.6	9.1	16.1	18.9	18.2	18.2	17.6	9.2	15.5	19.7	19.0	19.0
8-9	14.6	9.7	7.6	19.4	24.3	24.3	13.7	7.9	8.6	20.1	25.9	23.7
9-10	8.7	4.4	9.6	20.9	29.6	27.0	6.9	6.9	12.1	20.7	31.9	21.6
10-11	10.0	16.0	7.0	17.0	30.0	20.0	10.9	15.2	6.5	19.6	29.4	18.5
11-12	16.4	10.9	1.8	9.1	38.2	23.6	19.6	7.1	1.8	12.5	35.7	23.2
12-13	30.2	7.0	2.3	2.3	18.6	39.5	27.5	10.0	0.0	2.5	22.5	37.5
13-14	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	60.0	40.0
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 301

Month: Jun-Aug

5-Hr. Averaging Period

6-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	14.3	64.3	0.0	0.0	0.0	21.4	18.2	54.6	0.0	0.0	0.0	27.3
1-2	27.2	36.8	16.7	4.4	7.9	7.0	28.3	34.9	15.1	3.8	8.5	9.4
2-3	20.5	22.7	26.5	12.9	6.1	11.4	22.4	23.9	23.9	11.2	6.7	11.9
3-4	25.9	23.0	21.6	15.1	4.3	10.1	26.8	21.8	22.5	13.4	4.2	11.3
4-5	19.0	20.7	21.2	21.8	5.6	11.7	21.0	19.9	21.0	18.8	5.9	13.4
5-6	12.6	15.5	19.5	16.7	18.4	17.2	11.3	16.4	20.3	17.0	18.1	17.0
6-7	13.7	15.1	15.8	15.8	16.6	23.0	13.2	14.7	14.0	17.8	15.5	24.8
7-8	20.1	9.7	16.0	17.4	20.1	16.7	17.8	9.2	16.5	17.1	23.0	16.5
8-9	9.0	9.0	10.4	21.5	25.0	25.0	6.9	10.4	10.4	23.6	25.0	23.6
9-10	6.4	8.3	12.8	22.9	32.1	17.4	7.6	7.6	16.0	24.5	32.1	12.3
10-11	13.3	12.2	6.7	23.3	31.1	13.3	15.5	11.9	7.1	22.6	27.4	15.5
11-12	22.0	5.1	3.4	13.6	32.2	23.7	25.9	3.7	1.9	18.5	31.5	18.5
12-13	20.0	8.6	0.0	2.9	28.6	40.0	11.1	8.3	0.0	5.6	30.6	44.4
13-14	0.0	0.0	0.0	0.0	60.0	40.0	0.0	0.0	0.0	0.0	75.0	25.0
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Sep-Nov

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	25.6	25.6	18.6	7.0	9.3	14.0	26.9	30.8	11.5	3.9	3.9	23.1
1-2	14.9	20.9	31.3	10.5	11.9	10.5	16.4	19.2	28.8	11.0	15.1	9.6
2-3	14.3	12.9	20.0	25.7	15.7	11.4	7.7	13.9	21.5	26.2	16.9	13.9
3-4	7.4	12.4	13.6	23.5	21.0	22.2	15.7	15.7	15.7	20.5	15.7	16.9
4-5	19.4	20.4	15.1	19.4	11.8	14.0	17.1	22.7	14.8	11.4	17.1	17.1
5-6	21.9	14.3	16.8	11.8	14.3	21.0	22.2	11.1	18.5	15.7	14.8	17.6
6-7	12.8	21.1	16.5	17.4	18.4	13.8	16.2	19.1	14.3	20.0	16.2	14.3
7-8	18.8	4.5	12.5	24.1	20.5	19.6	16.0	7.6	8.5	22.6	20.8	24.5
8-9	12.1	13.2	13.2	13.2	17.6	30.8	11.2	9.2	20.4	15.3	18.4	25.5
9-10	14.6	12.5	15.6	13.5	26.0	17.7	13.6	12.4	13.6	11.1	34.6	14.8
10-11	23.5	35.3	8.8	5.9	17.7	8.8	33.3	33.3	11.1	8.3	8.3	5.6
11-12	26.9	26.9	11.5	11.5	7.7	15.4	21.7	21.7	13.0	17.4	4.4	21.7
12-13	10.5	26.3	15.8	15.8	5.3	26.3	8.7	39.1	4.4	8.7	13.0	26.1
13-14	5.3	26.3	26.3	21.1	15.8	5.3	27.3	18.2	45.5	9.1	0.0	0.0
14-15	15.4	7.7	0.0	38.5	30.8	7.7	18.2	0.0	0.0	63.6	18.2	0.0
15-16	16.7	0.0	33.3	25.0	25.0	0.0	5.3	5.3	21.1	26.3	42.1	0.0
16-17	0.0	0.0	22.2	11.1	44.4	22.2	14.3	14.3	28.6	0.0	28.6	14.3
17-18	33.3	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	33.3	66.7
18-19	0.0	0.0	0.0	0.0	33.3	66.7	0.0	0.0	0.0	0.0	50.0	50.0
19-20	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	20.0	20.0	0.0	20.0
20-21	75.0	0.0	0.0	0.0	0.0	25.0	50.0	0.0	0.0	0.0	0.0	50.0
21-22	0.0	0.0	0.0	0.0	0.0	0.0						
22-23	0.0	0.0	0.0	0.0	0.0	0.0						
23-24	0.0	100.0	0.0	0.0	0.0	0.0						
24-25	0.0	0.0	0.0	0.0	0.0	0.0	A2-10					
> 25	0.0	0.0	0.0	100.0	0.0	0.0						

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Sep-Nov

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	33.3	33.3	0.0	5.6	5.6	22.2	33.3	20.0	0.0	6.7	13.3	26.7
1-2	14.1	23.4	23.4	10.9	12.5	15.6	17.7	27.4	27.4	6.5	8.1	12.9
2-3	15.4	15.4	25.6	15.4	16.7	11.5	13.6	12.1	16.7	16.7	24.2	16.7
3-4	10.5	11.9	16.4	23.9	19.4	17.9	19.4	17.9	20.9	16.4	17.9	7.5
4-5	19.3	22.9	14.5	16.9	10.8	15.7	14.8	16.1	9.9	19.8	14.8	24.7
5-6	21.0	11.0	15.0	13.0	22.0	18.0	22.9	11.5	17.7	14.6	19.8	13.5
6-7	15.1	16.8	17.7	18.5	16.8	15.1	16.5	17.4	16.5	16.5	14.9	18.2
7-8	13.3	4.4	8.9	26.7	21.1	25.6	12.5	1.1	10.2	29.6	21.6	25.0
8-9	9.6	14.4	16.4	15.4	18.3	26.0	9.3	17.5	17.5	13.4	20.6	21.7
9-10	16.0	14.7	13.3	10.7	36.0	9.3	12.7	15.5	11.3	15.5	35.2	9.9
10-11	35.3	23.5	17.7	8.8	5.9	8.8	44.8	20.7	13.8	10.3	0.0	10.3
11-12	29.4	29.4	0.0	17.7	0.0	23.5	25.0	30.0	10.0	5.0	5.0	25.0
12-13	5.3	31.6	5.3	15.8	15.8	26.3	7.1	28.6	0.0	21.4	21.4	21.4
13-14	33.3	20.0	33.3	0.0	13.3	0.0	30.0	15.0	30.0	5.0	15.0	5.0
14-15	14.3	7.1	21.4	42.9	14.3	0.0	5.9	5.9	35.3	29.4	23.5	0.0
15-16	5.3	5.3	21.1	31.6	36.8	0.0	0.0	13.3	20.0	46.7	13.3	6.7
16-17	0.0	0.0	40.0	20.0	40.0	0.0	16.7	0.0	16.7	16.7	50.0	0.0
17-18	33.3	0.0	0.0	0.0	33.3	33.3	0.0	0.0	0.0	0.0	100.0	0.0
18-19	0.0	0.0	0.0	0.0	25.0	75.0	25.0	0.0	0.0	0.0	0.0	75.0
19-20	50.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	100.0
20-21	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: Sep-Nov

5-Hr. Averaging Period

6-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	33.3	33.3	0.0	11.1	11.1	11.1	60.0	20.0	0.0	20.0	0.0	0.0
1-2	25.0	25.0	17.9	3.6	10.7	17.9	25.5	27.5	15.7	0.0	13.7	17.7
2-3	8.5	13.6	23.7	20.3	17.0	17.0	9.8	18.0	18.0	19.7	21.3	13.1
3-4	19.2	15.4	20.5	15.4	20.5	9.0	19.7	17.1	19.7	13.2	15.8	14.5
4-5	12.9	14.3	11.4	18.6	14.3	28.6	12.2	6.8	13.5	18.9	18.9	29.7
5-6	24.2	11.0	17.6	11.0	23.1	13.2	22.2	13.6	17.3	11.1	21.0	14.8
6-7	15.4	16.2	17.1	19.7	16.2	15.4	16.7	14.0	15.8	22.8	14.0	16.7
7-8	11.5	6.9	12.6	28.7	18.4	21.8	7.1	7.1	16.5	24.7	21.2	23.5
8-9	9.3	13.4	15.5	15.5	24.7	21.7	8.7	19.6	15.2	18.5	21.7	16.3
9-10	11.8	19.1	11.8	17.7	29.4	10.3	13.2	14.7	13.2	19.1	27.9	11.8
10-11	50.0	13.3	13.3	10.0	3.3	10.0	51.7	10.3	13.8	6.9	3.5	13.8
11-12	25.0	25.0	6.3	0.0	6.3	37.5	42.9	7.1	7.1	0.0	7.1	35.7
12-13	12.5	18.8	12.5	18.8	25.0	12.5	0.0	18.8	25.0	12.5	37.5	6.3
13-14	22.7	13.6	27.3	9.1	18.2	9.1	21.7	17.4	21.7	13.0	13.0	13.0
14-15	0.0	13.3	40.0	33.3	13.3	0.0	0.0	10.0	50.0	30.0	10.0	0.0
15-16	5.9	11.8	23.5	41.2	11.8	5.9	5.9	17.7	23.5	47.1	5.9	0.0
16-17	0.0	0.0	0.0	0.0	100.0	0.0	20.0	0.0	0.0	20.0	40.0	20.0
17-18	25.0	0.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
18-19	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
19-20	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

A2-12

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301
Month: All

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	19.2	35.6	18.1	4.5	6.8	15.8	18.5	39.5	10.1	3.4	8.4	20.2
1-2	14.3	27.5	26.3	12.5	9.6	9.7	18.0	28.5	24.4	10.2	8.7	10.2
2-3	18.4	18.7	24.1	20.8	9.6	8.4	16.1	20.2	22.0	20.8	10.7	10.2
3-4	15.4	17.6	16.2	25.8	12.6	12.4	18.5	20.2	18.5	21.6	10.1	11.2
4-5	16.4	15.5	20.8	18.1	14.0	15.2	16.1	14.2	21.1	17.5	15.6	15.4
5-6	21.7	12.0	20.1	13.6	14.9	17.7	19.6	15.5	19.3	15.7	13.5	16.4
6-7	14.9	16.9	18.0	17.2	17.8	15.3	15.2	14.6	17.8	16.3	18.6	17.6
7-8	15.9	11.9	15.9	20.6	18.8	17.0	15.6	11.7	14.3	21.6	18.6	18.2
8-9	15.1	13.4	14.7	17.7	16.9	22.2	14.3	14.7	16.9	17.1	16.9	20.1
9-10	12.5	15.8	13.7	17.5	22.3	18.3	12.7	14.5	13.5	18.3	23.1	18.1
10-11	15.0	19.6	11.9	15.0	20.3	18.2	16.1	17.9	12.5	16.1	20.8	16.6
11-12	18.6	14.2	9.8	12.2	23.7	21.4	20.4	12.8	11.2	13.2	21.4	21.1
12-13	19.8	13.3	10.9	13.3	19.4	23.4	17.9	13.4	8.1	13.4	23.2	24.0
13-14	15.8	15.8	14.3	15.0	21.1	18.1	14.1	18.0	18.0	13.3	18.8	18.0
14-15	27.3	19.3	4.6	14.8	17.1	17.1	26.7	17.4	2.3	17.4	19.8	16.3
15-16	15.4	17.3	19.2	13.5	21.2	13.5	16.7	13.3	18.3	20.0	21.7	10.0
16-17	16.2	8.1	24.3	13.5	21.6	16.2	20.7	20.7	17.2	10.3	20.7	10.3
17-18	35.0	15.0	5.0	10.0	15.0	20.0	25.0	6.3	12.5	0.0	31.3	25.0
18-19	0.0	0.0	10.0	0.0	10.0	80.0	0.0	0.0	22.2	0.0	11.1	66.7
19-20	0.0	0.0	0.0	100.0	0.0	0.0	40.0	0.0	20.0	20.0	0.0	20.0
20-21	66.7	0.0	16.7	0.0	0.0	16.7	50.0	0.0	0.0	0.0	0.0	50.0
21-22	6.9	17.2	37.9	27.6	10.3	0.0	13.3	16.7	33.3	26.7	6.7	3.3
22-23	18.4	18.4	8.2	8.2	22.5	24.5	18.2	18.2	6.8	11.4	25.0	20.5
23-24	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
> 25	0.0	66.7	0.0	33.3	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: All

Wind Speed Range (m/s)	3-Hr. Averaging Period						4-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	19.1	42.7	4.5	22.5	10.1	21.4	18.8	39.1	2.9	2.9	11.6	24.6
1-2	18.5	32.1	20.7	8.3	8.0	12.4	22.8	31.4	18.8	7.6	8.3	11.2
2-3	19.2	19.8	22.8	18.1	10.0	10.0	19.7	18.5	22.1	15.8	11.5	12.4
3-4	17.1	18.6	20.0	21.2	12.2	11.0	19.3	22.6	22.3	17.1	10.3	8.4
4-5	17.2	15.6	20.0	19.5	12.8	14.9	14.6	15.1	15.7	20.4	13.4	20.8
5-6	18.3	14.7	18.3	13.8	16.4	18.5	18.3	16.0	19.5	15.6	15.8	14.9
6-7	15.1	15.9	17.2	15.9	18.8	17.2	15.6	15.2	17.4	15.6	17.4	18.9
7-8	15.7	9.7	16.5	22.3	18.4	17.4	14.2	10.1	16.3	23.3	18.0	18.2
8-9	12.8	15.2	16.4	18.0	17.6	19.8	13.0	14.9	17.2	17.6	19.3	18.2
9-10	13.3	16.1	13.3	17.5	22.5	17.5	13.9	15.4	13.7	17.7	23.1	16.2
10-11	16.3	15.3	13.1	17.8	21.7	15.8	16.9	15.6	11.8	19.2	21.0	15.6
11-12	22.0	12.0	11.0	14.7	21.3	19.0	21.9	10.3	13.2	14.1	21.3	19.1
12-13	16.7	14.1	7.3	15.0	21.8	25.2	13.3	13.3	7.8	17.9	24.3	23.4
13-14	14.6	16.9	16.9	11.5	22.3	17.7	17.0	19.2	14.9	11.4	19.9	17.7
14-15	84.7	15.7	7.9	16.9	19.1	15.7	24.1	13.8	11.5	14.9	19.5	16.1
15-16	17.7	9.8	15.7	21.6	23.5	11.8	16.3	10.2	18.4	28.6	12.2	14.3
16-17	18.2	18.2	27.3	12.1	15.2	9.1	17.9	21.4	17.9	10.7	21.4	10.7
17-18	30.8	7.7	7.7	0.0	30.8	23.1	25.0	8.3	8.3	0.0	41.7	16.7
18-19	0.0	0.0	0.0	0.0	22.2	77.8	10.0	10.0	0.0	0.0	20.0	60.0
19-20	25.0	25.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	100.0
20-21	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	50.0	0.0	0.0	50.0
21-22	13.3	16.7	30.0	26.7	6.7	6.7	10.3	24.1	27.6	27.6	0.0	10.3
22-23	20.5	18.0	7.7	12.8	25.6	15.4	22.2	16.7	8.3	11.1	30.6	11.1
23-24	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
24-25	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
> 25	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0

A2-14

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 301

Month: All

Wind Speed Range (m/s)	5-Hr. Averaging Period						6-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	20.9	44.2	0.0	4.7	9.3	20.9	29.0	35.5	0.0	3.2	12.9	19.4
1-2	26.0	29.4	15.9	6.6	9.0	13.2	26.4	27.5	14.1	7.4	9.3	15.2
2-3	19.5	19.8	21.9	13.8	11.7	13.2	20.8	22.6	20.2	11.3	12.2	12.8
3-4	19.5	21.4	21.9	16.6	10.3	10.3	20.4	20.6	20.9	15.9	10.1	12.2
4-5	14.3	17.2	16.2	18.6	13.8	19.9	15.9	15.7	16.4	17.8	15.0	19.2
5-6	17.4	16.3	18.1	14.7	17.8	15.8	15.0	17.3	18.0	14.8	18.0	16.9
6-7	14.3	15.3	17.2	17.8	17.2	18.2	14.1	14.9	16.9	18.8	16.0	19.3
7-8	15.9	10.7	17.8	21.0	17.1	17.6	14.9	11.1	18.2	19.6	18.2	18.2
8-9	11.5	14.6	16.3	19.1	19.1	19.3	10.9	16.1	16.5	21.5	18.5	16.5
9-10	15.2	16.2	14.4	17.9	22.5	13.9	16.5	15.3	15.9	16.7	22.1	13.5
10-11	17.9	12.1	13.7	21.3	20.7	14.4	18.8	10.6	12.5	21.2	21.2	15.8
11-12	20.9	10.5	13.2	14.2	21.2	20.0	20.9	10.3	13.9	16.2	19.2	19.5
12-13	11.4	13.9	8.9	17.8	25.7	22.3	6.2	14.8	12.4	17.7	26.8	22.0
13-14	17.3	13.0	13.7	14.4	21.6	20.1	18.8	12.8	12.8	16.8	20.8	18.1
14-15	22.6	15.5	11.9	14.3	17.9	17.9	22.9	15.7	12.9	11.4	15.7	21.4
15-16	15.7	17.7	13.7	31.4	9.8	11.8	18.4	16.3	14.3	32.7	10.2	8.2
16-17	25.0	10.0	30.0	5.0	15.0	15.0	27.3	4.6	18.2	18.2	13.6	18.2
17-18	18.8	6.3	6.3	0.0	56.3	12.5	7.1	14.3	0.0	0.0	57.1	21.4
18-19	0.0	14.3	0.0	0.0	14.3	71.4	0.0	25.0	0.0	0.0	12.5	62.5
19-20	0.0	50.0	0.0	0.0	0.0	50.0	0.0	66.7	0.0	0.0	0.0	33.3
20-21	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
21-22	7.1	28.6	25.0	25.0	0.0	14.3	3.6	28.6	25.0	25.0	3.6	14.3
22-23	24.2	15.2	9.1	15.2	27.3	9.1	30.0	10.0	13.3	16.7	20.0	10.0
23-24	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
24-25	50.0	50.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300

Month: Dec-Feb

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	20.0	16.4	20.0	16.4	7.3	20.0	15.8	23.7	13.2	15.8	5.3	26.3
1-2	16.3	13.0	15.2	13.0	26.1	16.3	15.9	11.2	17.8	15.0	24.3	15.9
2-3	16.6	11.3	20.5	17.9	18.5	15.2	17.2	11.7	19.3	16.6	18.6	16.6
3-4	10.3	16.7	17.5	21.4	13.5	20.6	8.1	18.7	22.0	22.8	13.8	14.6
4-5	17.9	20.8	17.0	18.9	17.0	8.5	18.8	17.9	16.1	17.0	15.2	15.2
5-6	17.9	17.9	21.8	14.1	15.4	12.8	21.1	21.1	15.8	15.8	17.1	9.2
6-7	13.2	15.8	15.8	18.4	10.5	26.3	14.5	18.4	15.8	13.2	17.1	21.1
7-8	17.7	20.3	13.9	16.5	11.4	20.3	15.4	19.2	19.2	15.4	5.1	25.6
8-9	24.6	22.8	8.8	19.3	7.0	17.5	28.1	17.5	3.5	21.1	8.8	21.1
9-10	19.6	21.6	13.7	13.7	17.6	13.7	22.0	16.9	10.2	16.9	20.3	13.6
10-11	15.4	7.7	5.1	12.8	41.0	17.9	10.8	13.5	10.8	13.5	37.8	13.5
11-12	0.0	21.4	14.3	21.4	28.6	14.3	6.7	26.7	20.0	20.0	20.0	6.7
12-13	11.1	33.3	22.2	0.0	33.3	0.0	0.0	25.0	0.0	0.0	75.0	0.0
13-14	100.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0
14-15	75.0	0.0	0.0	25.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	33.3
15-16	0.0	0.0	33.3	33.3	0.0	33.3	33.3	0.0	33.3	16.7	0.0	16.7
16-17	16.7	0.0	0.0	16.7	33.3	33.3	0.0	0.0	0.0	40.0	20.0	40.0
17-18	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

Tower: 300
Month: Dec-Feb
3-Hr. Averaging Period

Month: Dec-Feb

3-Hr. Averaging Period

[illegible]

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Month: Dec-Feb

Month: Dec-Feb

5-Hr. Averaging Period

6-Hr. Averaging Period

[illegible]

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 300
Month: Mar-May

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	23.1	53.9	7.7	7.7	0.0	7.7	0.0	100.0	0.0	0.0	0.0	0.0
1-2	0.0	9.1	45.5	9.1	9.1	27.3	6.7	33.3	26.7	6.7	6.7	20.0
2-3	14.8	9.3	22.2	11.1	27.8	14.8	14.6	4.2	16.7	16.7	27.1	20.8
3-4	16.3	20.4	16.3	22.5	12.2	12.2	15.1	24.5	22.6	15.1	15.1	7.6
4-5	18.0	15.4	2.6	28.2	25.6	10.3	24.3	10.8	8.1	29.7	18.9	8.1
5-6	15.9	9.1	13.6	25.0	20.5	15.9	13.3	6.7	11.1	22.2	28.9	17.8
6-7	9.4	6.3	15.6	21.9	18.8	28.1	12.9	16.1	19.4	22.6	9.7	19.4
7-8	35.7	28.6	7.1	7.1	0.0	21.4	27.8	5.6	5.6	16.7	11.1	33.3
8-9	17.7	23.5	5.9	5.9	17.7	29.4	16.7	25.0	8.3	0.0	16.7	33.3
9-10	5.9	23.5	11.8	0.0	11.8	47.1	11.8	23.5	11.8	0.0	17.7	35.3
10-11	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300

Month: Mar-May

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
1-2	14.3	57.1	7.1	0.0	7.1	14.3	0.0	85.7	0.0	0.0	0.0	14.3
2-3	8.9	6.7	13.3	24.4	24.4	22.2	11.8	13.7	9.8	21.6	23.5	19.6
3-4	17.2	20.7	29.3	10.3	17.2	5.2	19.3	17.5	31.6	12.3	15.8	3.5
4-5	18.0	12.8	7.7	28.2	15.4	18.0	18.4	10.5	5.3	26.3	15.8	23.7
5-6	14.6	2.4	14.6	26.8	29.3	12.2	12.8	5.1	12.8	30.8	30.8	7.7
6-7	27.6	10.3	17.2	13.8	17.2	13.8	16.1	16.1	25.8	12.9	12.9	16.1
7-8	15.0	10.0	10.0	15.0	5.0	45.0	28.6	0.0	9.5	9.5	14.3	38.1
8-9	9.1	18.2	9.1	9.1	27.3	27.3	9.1	18.2	18.2	9.1	18.2	27.3
9-10	16.7	27.8	11.1	0.0	16.7	27.8	17.7	29.4	0.0	0.0	23.5	29.4
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 300

Month: Mar-May

5-Hr. Averaging Period

6-Hr. Averaging Period

Wind Speed Range (m/s)	5-Hr. Averaging Period						6-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-2	33.3	66.7	0.0	0.0	0.0	0.0	75.0	25.0	0.0	0.0	0.0	0.0
2-3	7.4	20.4	7.4	20.4	25.9	18.5	7.1	21.4	10.7	21.4	21.4	17.9
3-4	22.2	16.7	29.6	13.0	13.0	5.6	22.5	20.4	28.6	10.2	12.2	6.1
4-5	17.5	12.5	10.0	25.0	12.5	22.5	17.4	13.0	10.9	21.7	15.2	21.7
5-6	8.8	5.9	17.7	32.4	29.4	5.9	9.4	3.1	18.8	40.6	25.0	3.1
6-7	21.6	10.8	18.9	13.5	18.9	16.2	20.6	11.8	17.7	8.8	17.7	23.5
7-8	22.2	0.0	11.1	5.6	16.7	44.4	14.3	0.0	19.1	9.5	23.8	33.3
8-9	7.1	28.6	14.3	14.3	14.3	21.4	14.3	35.7	0.0	14.3	7.1	28.6
9-10	23.1	23.1	0.0	0.0	30.8	23.1	18.2	27.3	0.0	0.0	45.5	9.1
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 300
Month: Jun-Aug

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	19.5	53.3	9.1	1.3	1.3	15.6	20.6	55.6	3.2	0.0	3.2	17.5
1-2	23.8	28.2	20.7	7.1	14.5	5.7	26.0	31.1	17.5	6.8	10.6	8.1
2-3	15.9	12.3	24.3	17.9	16.9	12.8	14.7	12.4	23.2	20.0	16.7	13.1
3-4	13.4	11.1	10.7	21.1	19.5	24.2	12.8	10.5	12.8	19.3	21.3	23.3
4-5	10.5	12.3	14.0	19.3	15.8	28.1	10.7	8.9	15.2	19.6	17.0	28.6
5-6	12.5	7.8	12.5	31.3	23.4	12.5	11.3	11.3	16.1	30.7	21.0	9.7
6-7	18.8	6.3	9.4	18.8	12.5	34.4	21.4	3.6	7.1	17.9	17.9	32.1
7-8	33.3	0.0	0.0	33.3	0.0	33.3	33.3	0.0	0.0	33.3	0.0	33.3
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 300

Month: Jun-Aug

3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	30.0	48.9	2.1	0.0	2.1	17.0	42.5	37.5	2.5	0.0	2.5	15.0
1-2	25.7	36.5	12.2	7.8	9.1	8.7	27.2	38.4	8.0	7.1	7.6	11.6
2-3	14.8	14.1	22.5	18.8	15.3	14.6	14.1	15.1	21.8	19.2	14.6	15.3
3-4	13.2	7.3	13.5	20.8	23.5	21.8	12.1	7.4	15.4	19.5	24.8	20.8
4-5	9.3	10.2	18.5	14.8	19.4	27.8	9.3	10.3	21.7	16.5	20.6	21.7
5-6	7.6	11.3	18.9	35.9	17.0	9.4	8.6	12.1	19.0	32.8	17.2	10.3
6-7	23.5	2.9	8.8	14.7	20.6	29.4	23.3	0.0	10.0	10.0	23.3	33.3
7-8												
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS

Tower: 300

Month: Jun-Aug

5-Hr. Averaging Period

6-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	52.9	26.5	0.0	0.0	5.9	14.7	63.0	14.8	0.0	0.0	7.4	14.8
1-2	28.4	37.6	6.0	6.4	6.9	14.7	32.4	33.3	5.5	5.0	7.8	16.0
2-3	13.9	16.5	22.0	19.1	12.5	16.0	13.7	17.4	21.5	18.7	12.2	16.7
3-4	11.1	6.9	14.9	20.1	28.5	18.4	8.3	7.6	16.0	20.9	29.5	17.7
4-5	9.8	8.7	23.9	15.2	22.8	19.6	11.6	10.5	24.4	17.4	19.8	16.3
5-6	11.9	13.6	22.0	28.8	13.6	10.2	12.3	14.0	24.6	28.1	12.3	8.8
6-7	20.0	0.0	8.0	8.0	28.0	36.0	16.0	0.0	8.0	8.0	32.0	36.0
7-8												
8-9												
9-10												
10-11												
11-12												
12-13												
13-14												
14-15												
15-16												
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300
Month: Sept-Nov

Wind Speed Range (m/s)	1-Hr. Averaging Period Time of Day (LST)						2-Hr. Averaging Period Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	19.4	33.3	19.4	2.8	9.7	15.3	16.0	42.0	14.0	2.0	10.0	16.0
1-2	17.9	14.3	20.5	8.9	19.6	18.8	20.6	14.7	17.6	7.8	21.6	17.6
2-3	13.8	9.5	15.3	24.3	21.7	15.3	14.7	9.8	16.2	22.1	17.6	19.6
3-4	13.8	14.8	18.0	14.3	19.8	19.4	14.2	13.7	17.8	15.1	23.7	15.5
4-5	21.2	23.2	11.3	13.2	12.6	18.5	20.5	24.0	14.4	13.7	11.0	16.4
5-6	16.5	17.4	15.7	21.5	13.2	15.7	15.5	15.5	15.5	21.4	12.6	19.4
6-7	14.3	11.1	15.9	22.2	17.5	19.0	16.9	13.8	15.4	20.0	18.5	15.4
7-8	29.3	24.4	14.6	9.8	14.6	7.3	29.5	20.5	11.4	6.8	22.7	9.1
8-9	21.2	6.1	18.2	18.2	12.1	24.2	21.4	14.3	21.4	14.3	3.6	25.0
9-10	18.4	20.4	14.3	18.4	16.3	12.2	22.0	18.0	14.0	20.0	12.0	14.0
10-11	13.9	27.8	2.8	11.1	13.9	30.6	8.8	26.5	2.9	14.7	20.6	26.5
11-12	16.7	16.7	22.2	22.2	22.2	0.0	15.4	15.4	30.8	23.1	7.7	7.7
12-13	0.0	0.0	40.0	33.3	20.0	6.7	6.7	0.0	33.3	26.7	26.7	6.7
13-14	12.5	0.0	0.0	12.5	50.0	25.0	9.1	0.0	0.0	36.4	45.5	9.1
14-15	12.5	0.0	0.0	12.5	12.5	62.5	20.0	0.0	0.0	0.0	0.0	80.0
15-16	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	66.7	33.3
16-17	50.0	0.0	0.0	0.0	50.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
17-18	100.0	0.0	0.0	0.0	0.0	0.0						
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300
Month: Sept-Nov
3-Hr. Averaging Period

4-Hr. Averaging Period

Wind Speed Range (m/s)	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	21.2	42.4	9.1	3.0	9.1	15.2	26.9	46.2	0.0	3.9	3.9	19.2
1-2	21.6	15.7	16.7	9.8	18.6	17.7	21.7	14.4	17.5	6.2	19.6	20.6
2-3	14.8	8.4	14.8	23.2	19.7	19.2	15.5	10.0	15.0	23.5	20.0	16.0
3-4	12.5	16.7	17.1	13.4	23.2	17.1	11.1	15.9	16.4	13.9	22.6	20.2
4-5	19.0	23.5	16.3	13.1	11.1	17.0	25.0	21.0	12.8	14.2	12.2	14.9
5-6	16.1	10.8	16.1	25.8	14.0	17.2	12.8	10.6	21.3	21.3	17.0	17.0
6-7	15.5	19.0	12.1	13.8	25.9	13.8	14.6	20.0	12.7	18.2	27.3	7.3
7-8	36.8	13.2	18.4	5.3	13.2	13.2	37.8	10.8	13.5	5.4	10.8	21.6
8-9	21.9	18.8	12.5	15.6	9.4	21.9	21.2	21.2	15.2	18.2	9.1	15.2
9-10	22.7	15.9	15.9	20.5	9.1	15.9	23.7	18.4	15.8	13.2	10.5	18.4
10-11	6.3	28.1	6.3	15.6	18.8	25.0	13.5	18.9	8.1	21.6	16.2	21.6
11-12	21.1	10.5	31.6	10.5	21.1	5.3	12.5	12.5	37.5	6.3	25.0	6.3
12-13	0.0	8.3	25.0	33.3	33.3	0.0	7.1	0.0	35.7	28.6	21.4	7.1
13-14	11.1	0.0	0.0	5.6	22.2	11.1	0.0	0.0	0.0	85.7	14.3	0.0
14-15	0.0	0.0	0.0	0.0	40.0	60.0	14.3	0.0	0.0	0.0	42.9	42.9
15-16	20.0	0.0	0.0	0.0	40.0	40.0	20.0	0.0	0.0	0.0	20.0	60.0
16-17	100.0	0.0	0.0	0.0	0.0	0.0						
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300
Month: Sept-Nov

Wind Speed Range (m/s)	5-Hr. Averaging Period						6-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	40.0	46.7	0.0	0.0	6.7	6.7	54.6	36.4	0.0	0.0	0.0	9.1
1-2	22.9	14.6	13.5	5.2	17.7	26.0	21.4	16.7	10.7	4.8	17.9	28.6
2-3	14.7	10.2	15.7	21.8	21.3	16.2	13.8	12.3	16.8	23.2	17.7	16.3
3-4	11.0	16.9	16.4	16.4	21.9	17.4	12.4	14.4	15.4	15.8	24.8	17.3
4-5	22.2	19.0	15.0	15.0	13.7	15.0	23.0	17.6	16.9	13.5	12.8	16.2
5-6	13.1	10.7	22.6	19.1	17.9	16.7	7.9	14.5	22.4	17.1	22.4	15.8
6-7	13.2	18.9	11.3	22.6	24.5	9.4	21.6	13.7	7.8	31.4	21.6	3.9
7-8	40.5	2.7	13.5	8.1	13.5	21.6	36.1	5.6	8.3	5.6	13.9	30.6
8-9	17.7	23.5	17.7	11.8	8.8	20.6	17.1	25.7	20.0	8.6	8.6	20.0
9-10	25.0	18.8	15.6	12.5	12.5	15.6	21.6	18.9	16.2	10.8	13.5	18.9
10-11	18.6	14.0	14.0	20.9	14.0	18.6	16.2	8.1	18.9	18.9	18.9	18.9
11-12	0.0	26.7	26.7	13.3	26.7	6.7	6.7	26.7	26.7	13.3	20.0	6.7
12-13	7.7	0.0	38.5	30.8	15.4	7.7	0.0	0.0	45.5	45.5	9.1	0.0
13-14	12.5	0.0	0.0	62.5	25.0	0.0	12.5	0.0	0.0	50.0	25.0	12.5
14-15	16.7	0.0	0.0	0.0	50.0	33.3	12.5	0.0	0.0	12.5	37.5	37.5
15-16	0.0	0.0	0.0	0.0	25.0	75.0	0.0	0.0	0.0	0.0	0.0	100.0
16-17												
17-18												
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

Tower: 300
Month: All

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**PROBABILITY OF OCCURRENCE (%) OF PERIODS HAVING VARIOUS
MEAN WINDSPEEDS, AS FUNCTIONS OF AVERAGING PERIOD AND
TIME OF DAY THE PERIOD BEGINS**

Tower: 300
Month: All

Wind Speed Range (m/s)	3-Hr. Averaging Period						4-Hr. Averaging Period					
	Time of Day (LST)						Time of Day (LST)					
	00-04	04-08	08-12	12-16	16-20	20-00	00-04	04-08	08-12	12-16	16-20	20-00
0-1	22.0	42.2	6.4	3.7	5.5	20.2	30.9	37.2	4.3	3.2	6.4	18.1
1-2	23.1	26.4	14.1	9.7	14.1	12.6	23.5	27.8	12.0	9.2	11.7	15.9
2-3	14.0	12.6	19.7	20.0	17.5	16.2	13.9	13.9	19.3	20.1	17.9	14.9
3-4	13.0	12.4	17.0	18.0	21.2	18.4	12.0	12.0	16.9	17.8	21.8	19.5
4-5	16.7	19.2	16.5	16.0	13.7	18.0	19.1	17.3	17.1	16.1	13.9	16.6
5-6	15.1	11.1	16.2	24.4	18.1	15.1	14.0	11.6	18.2	24.0	19.4	12.8
6-7	18.0	14.9	14.9	11.8	22.6	18.0	16.0	15.5	16.6	12.3	23.0	16.6
7-8	21.0	17.0	17.0	15.3	7.3	22.6	25.0	14.1	14.8	10.2	10.9	25.0
8-9	25.7	17.4	6.4	17.4	11.0	22.0	23.0	16.8	8.0	20.4	9.7	22.1
9-10	22.4	16.0	12.8	15.2	16.8	16.8	23.1	14.5	12.8	14.5	19.7	15.4
10-11	3.2	20.6	11.1	15.9	30.2	19.1	11.1	19.4	11.1	18.1	23.6	16.7
11-12	21.2	18.2	21.2	15.2	18.2	6.1	12.5	16.7	25.0	16.7	20.8	8.3
12-13	0.0	12.5	18.8	25.0	37.5	6.3	11.1	5.6	27.8	22.2	22.2	11.1
13-14	16.7	0.0	8.3	41.7	16.7	16.7	10.0	0.0	10.0	60.0	10.0	10.0
14-15	0.0	0.0	16.7	0.0	33.3	50.0	20.0	0.0	10.0	0.0	30.0	40.0
15-16	25.0	0.0	16.7	16.7	16.7	25.0	10.0	0.0	20.0	20.0	10.0	40.0
16-17	14.3	0.0	0.0	28.6	28.6	28.6	0.0	0.0	0.0	20.0	60.0	20.0
17-18	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
18-19												
19-20												
20-21												
21-22												
22-23												
23-24												
24-25												
> 25												

Tower: 300
Month: All

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